

**Minutes of the 255<sup>th</sup> meeting of the State Level Expert Appraisal Committee held on 05<sup>th</sup> August 2021 through Video Conference (VC) on National Informatics Centre (NIC).**

In the wake of recent crisis of COVID-19, lockdown situation, the agenda of the present meeting was mailed to expert Committee in advance and a Video conference meeting on NIC was organized in this regard on 05/08/2021 at 13.30 hrs.

The 255<sup>th</sup> meeting of the State Level Expert Appraisal Committee (SEAC) was held online by Video conferencing 5<sup>th</sup> August 2021 at 13.30 hrs. Following members joined the meeting:

1.	Shri Akshay Kumar Saxena, Chairman, SEAC
2.	Dr. S. C. Pant, Vice Chairman, SEAC
3.	Dr. M. N. Patel, Member, SEAC
4.	Shri D. C. Chaudhari, Member, SEAC
5.	Shri J. K. Vyas, Member, SEAC
6.	Shri Anand Zinzala, Member, SEAC
7.	Shri B. M. Tailor, Member, SEAC
8.	Shri A. V. Shah, Secretary, SEAC

The Committee considered the additional agenda of applications made by project proponents, additional details submitted as required by the SEAC/SEIAA and details furnished in the Form-1, PFR, EMP reports etc.

1.	SIA/GJ/IND2/197901/2021	<b>M/s. Subhasri Pigments Pvt. Ltd.</b> Plot no. J-1201, 1202, 1211, 1213, 1208, 1209 & 1209/A , 1207, 1212 GIDC Industrial Estate, Ankleshwar, Dist:-Bharuch, Gujarat.	EC-Amendment cum Merger Reconsideration
<ul style="list-style-type: none"><li>M/s Subhasri Pigments are two sister concerned units involved in manufacturing of "Synthetic Organic Chemicals" which was accorded Environmental Clearance vide letter no. SEIAA/GUJ/EC/5(f)/519/2019 dated</li></ul>			

01/04/2019 and SEIAA/GUJ/EC/5(f)/1104/2020 dated 30/09/2020.

- Now, project proponent has applied online vide proposal no. SIA/GJ/IND2/197901/2021 dated 13.02.2021 for EC-Amendment cum Merger as mentioned below:

Sr. no.	Condition no. in which Amendment proposed.	As per EC (SEIAA/GUJ/EC/5(f)/519/2019, SEIAA/GUJ/EC/5(f)/1305/2020 (EC-Corrigendum), SEIAA/GUJ/EC/5(f)/1104/2020)	As per proposed amendment	Justification
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**PRODUCTION DATA**

Sr. no.	Name of the Products	CAS no.	Quantity (MT/Month)				End-use of the products
			Plot No J- 1202, 1208, 1209/A, 1213	Plot No J - 1207	Plot No J - 1212	Total	
1.	CPC Green-7	74260	250	100	--	350	Coloring agent
2.	Copper Phthalocyanine Blue Crude	74160	80	--	--	80	Colouring agent
3.	Pigment Violet Tonner IC-77 (Lake Violet)	--	3.5	--	--	3.5	Colouring agent
4.	Pigment Violet Tonner IC-72	--	0.5	--	--	0.5	Colouring agent
5.	Pigment Persian Blue	74160	3.6	--	--	3.6	Paint & Textile Industries
6.	Beta Blue	74160	200	--	--	200	PVC, Plastic, Rubber
7.	Pigment Rubine Tonner	15850	1	--	--	1	Chalks, Plastic, Rubber

8.	Pigment Lake Red	15585	0.5	--	--	0.5	Colouring agent
9.	Pigment Maroon Tonner	15880	0.5	--	--	0.5	Plastic & Coating
10.	Alpha Blue	74160	100	--	--	100	Ceramic, Cosmetic, Ink
11.	Optical brightening agent	12224-02-1	--	--	6	6	Brightening agent
12.	2-Amino Phenol 4 Methyl Sulphone	98-30-6	--	--	2.5	2.5	In dyes
	Total (Organic Products)		639.60	100	8.5	748.1	
<b>IN-ORGANIC PRODUCT</b>							
13.	Ammonium Sulphate	7783-20-2	350.00	--	--	350	As Soil conditioner.
14.	Copper Sulphate	7758 – 98- 7	70.00	--	--	70	Pharma Industry
<b>TOTAL</b>			1059.6	100	8.5	1168.1	
<b>A.2 WATER :</b>							
1	21	Total water requirement for the project shall not exceed 1169 KL/day. Unit shall recycle 501 KL/day [RO permeate -209 KL/day, MEE Condensate – 207 KL/day & Internal recycle – 354 KL/day, Boiler steam – 84 KL/Day) shall be reused for process and Hence, fresh water requirement shall not exceed	Total water requirement for the project shall not exceed 1379 KL/day. Unit shall recycle 439.5 KL/day [RO permeate -81 KL/day, MEE Condensate – 53 KL/day & Internal recycle – 305.5 KL/day ) shall be reused for process and Hence, fresh water	Due to the plot merging application and additional 179 KLD discharge permission. Total fresh water requirement will be increased 176 KL/Day. We may bring on your notice that 6 KLD water consumption permission is increased after			

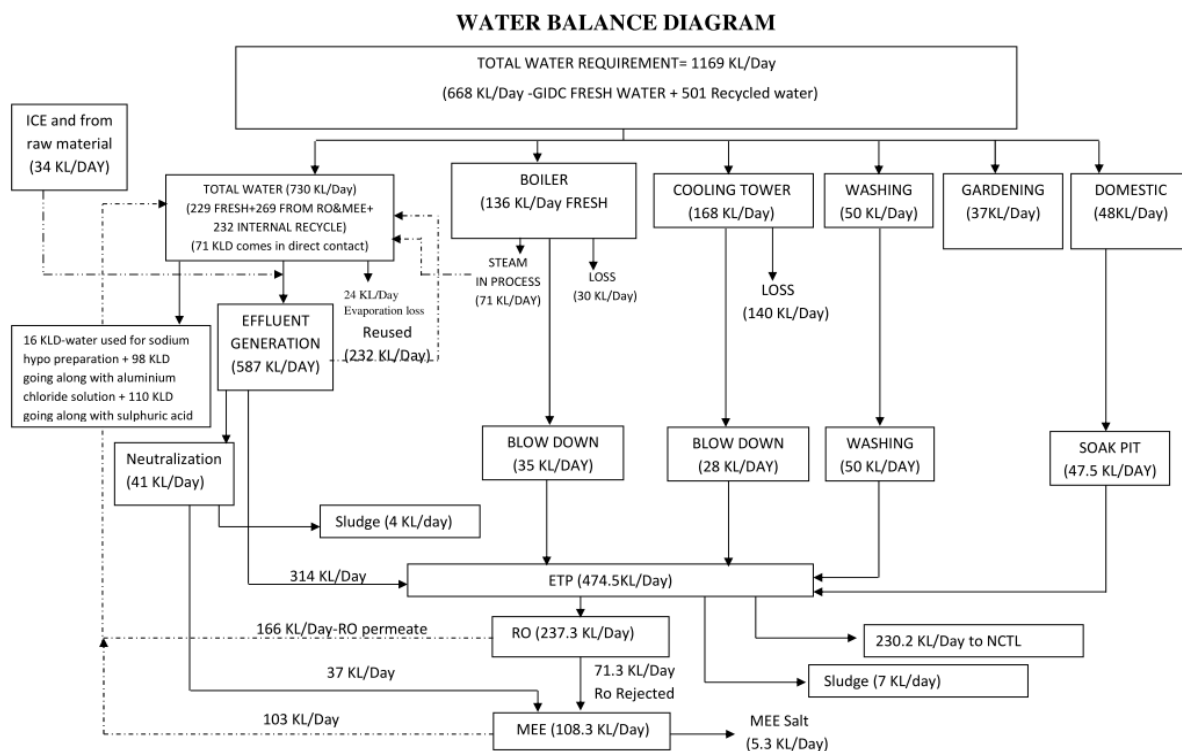
		668 KL/day and it shall be met through GIDC water supply only. Prior permission from the concerned authority shall be obtained for withdrawal of water.	requirement shall not exceed 921.5 KL/day and it shall be met through GIDC water supply only. Prior permission from the concerned authority shall be obtained for withdrawal of water.	amendment due to the consent no AWH: - 87737. Total water :- 1169 KLD + 204 KLD + 6 KLD
	21	Total water requirement of the project shall not exceed 204 KLD. Unit shall reuse 132.5 KLD of treated industrial effluent within premises. Hence, fresh water requirement shall not exceed 71.5 KLD and it shall be met through GIDC water supply only. Prior permission from the concerned authority shall be obtained for withdrawal of water.		
2	23	The industrial effluent generation from the project shall not exceed 747.5 KL/day after proposed expansion.	The industrial effluent generation from the project shall not exceed 893.8 KL/day after proposed expansion.	Due to the plot merging application. We may bring on your notice that 4.8 KLD waste water generation is increased after amendment due to the consent no AWH: - 87737. Total Waste water generation :- 747.5 KLD + 141.5 KLD + 4.8 KLD
	23	The industrial effluent generation from the project shall not exceed 141.5 KL/day after proposed expansion.		
3	24	The domestic waste water generation shall not exceed 47.50 KL/Day and it shall be treated with industrial waste water.	The domestic waste water generation shall not exceed 54.5 KL/Day and it shall be treated with industrial waste water.	Due to the plot merging application. We may bring on your notice that 1 KLD domestic effluent generation is

	24	Industrial effluent 62 KLD, along with 6 KLD sewage shall be treated in primary and tertiary ETP unit followed by RO plant.		increased after amendment due to the consent no AWH: - 87737. Total Waste water generation :- 47.5 KLD + 6 KLD + 1 KLD
	26	232 KLD of waste water stream shall be internally recycled for industrial purpose only.	305.5 KLD of waste water stream shall be internally recycled for industrial purpose only.	Due to the plot merging application.
	26	73.5 KLD of waste water stream shall be internally recycled for industrial purpose only.		
	29	Treated waste water of 230.2 KLD shall be discharged into CETP of NCT, Ankleshwar through underground pipeline after achieving prescribed norms.	Treated waste water of 409.2 KLD shall be discharged into CETP of NCT, Ankleshwar through underground pipeline after achieving prescribed norms. RO rejected 23 KLD shall be sent to CMEE of M/s .BEIL, Dahej for evaporation through GPS fitted tankers. 4.8 KLD effluent will be sent to M/s. ETL.	Due to the plot merging application and additional 179 KLD discharge permission. We may bring on your notice that as per the consent no AWH: - 87737, unit is having permission to send 4.8 KLD effluent into M/s. ETL.
		RO permeate 41 KLD shall be reused back in process (5 KLD) and cooling (36 KLD). RO rejected 23 KLD shall be sent to CMEE of M/s .BEIL, Dahej for evaporation through GPS fitted tankers.		
	30	Treated waste water of 237.3 KLD shall be subjected to two stage RO system.	Treated waste water of 58.3 KLD shall be subjected to two stage RO system.	Due to additional 179 KLD discharge permission.
	31	RO reject of 71.3 KLD shall be subjected to in-house MEE.	RO reject of 18.3 KLD shall be subjected to in-house MEE.	Due to additional 179 KLD discharge permission.

	32	RO permeate (166 KLD) and MEE condensate (103 KLD) shall be reused within premises.	RO permeate (40 KLD) and MEE condensate (53 KLD) shall be reused within premises.	Due to additional 179 KLD discharge permission.
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**EXISTING WATER BALANCE DIAGRAM WITH 230.2 KLD DISCHARGE**

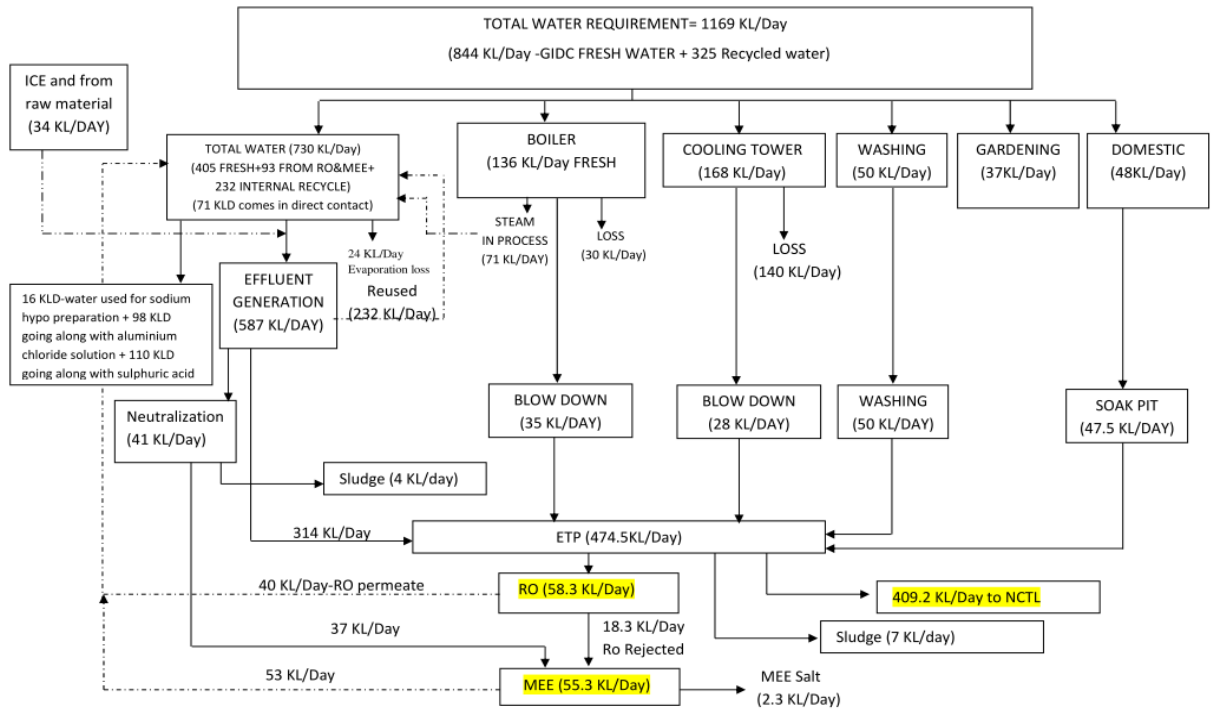
(SEIAA/GUJ/EC/5(f)/519/2019,datedon1<sup>st</sup>April2019&SEIAA/GUJ/EC/5(f)/1305/2020 (EC Corrigendum), dated on 5<sup>th</sup> November 2020 (PLOT NO: J-1201,1202,1211,1213,1208,1209,&1209/A))



**NEW WATER BALANCE DIAGRAM WITH ADDITIOANL 179 KLD DISCHARGE i.e 409.2 KLD**

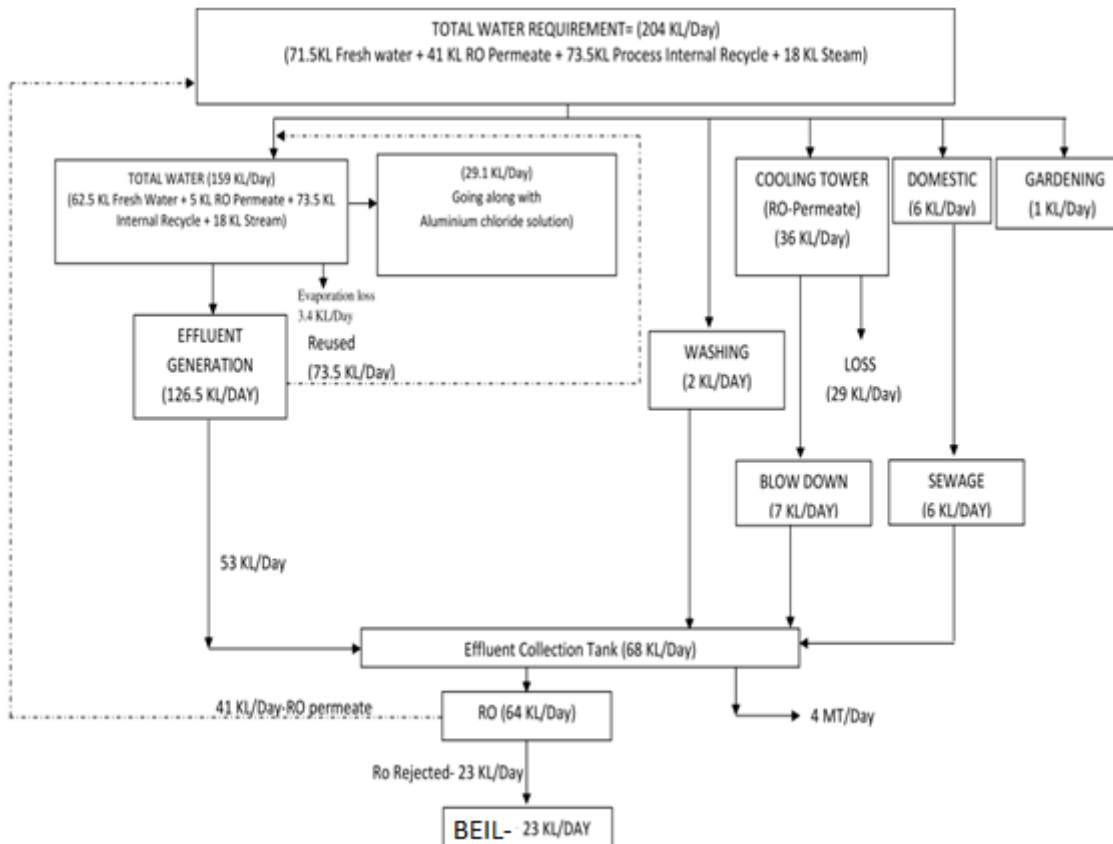
(SEIAA/GUJ/EC/5(f)/519/2019,datedon1<sup>st</sup>April2019&SEIAA/GUJ/EC/5(f)/1305/2020 (EC Corrigendum), dated on 5<sup>th</sup> November 2020 (PLOT NO: J-1201,1202,1211,1213,1208,1209,&1209/A))

### WATER BALANCE DIAGRAM

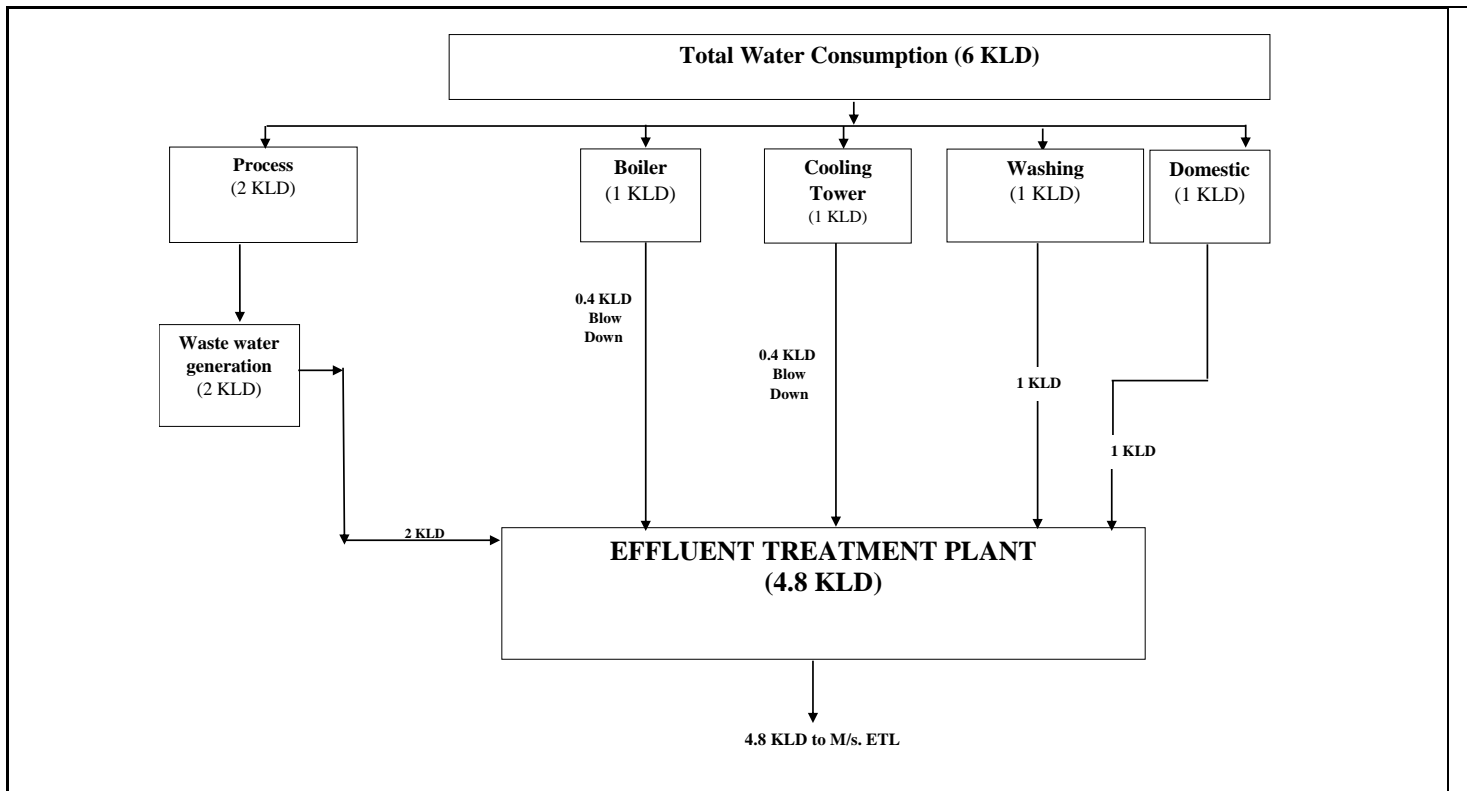


### WATER BALANCE DIAGRAM – REMAIN UNCHANGED

(SEIAA/GUJ/EC/5(f)/1104/2020, dated on 30<sup>th</sup> September 2020 (PLOT NO: J-1207))

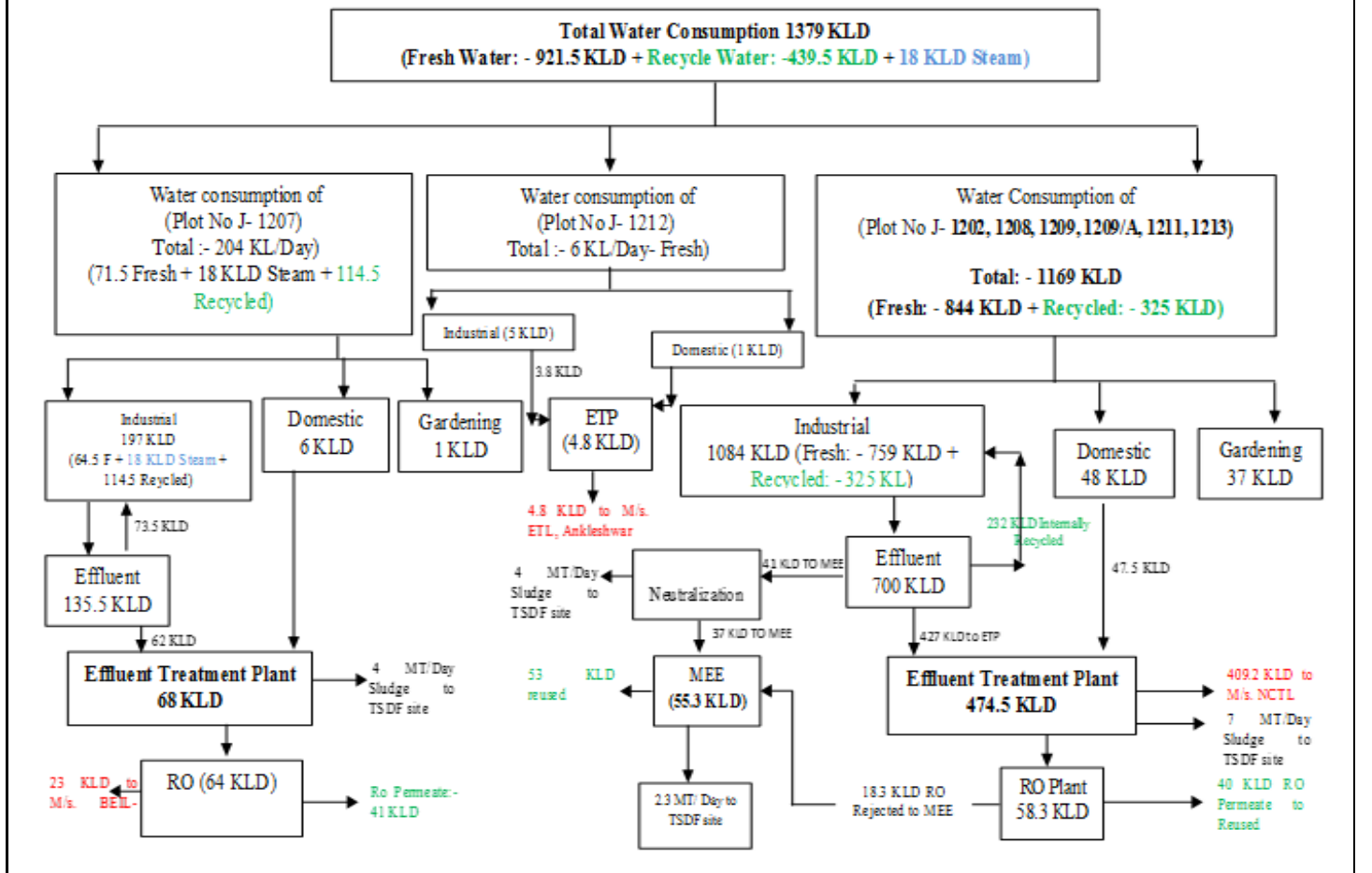


WATER BALANCE DIAGRAM (AS PER CCA- AWH- 87737 OF PLOT NO J -1212 )- REMAIN UNCHANGED



**FINAL WATER BALANCE DIAGRAM**

**OVERALL WATER BALANCE DIAGRAM**





A.3 AIR  
(CONDITION NO 37)

SR. no.	Source of emission With Capacity e.g. Boiler (8 TPH)	Stack Height (meter)	Name of the fuel	Quantity of Fuel MT/hr & MT/Day	Type of emissions i.e. Air Pollutants	APCM
EXISTING UTILITY OF PLOT NO J-1201,1202,1211,1213, 1208, 1209 & 1209/A						
1	Steam Boiler (IBR)- Green Plant (2.0TPH)	11	Natural Gas	125 m <sup>3</sup> /Hr	PM	--
	Thermic Fluid Heater –Green-7 (4.0 Lac Kcal)			45 m <sup>3</sup> /Hr	NOx	
2	Power Plant boiler/DG-125KVA	11	Natural Gas	--	PM SO2 NOx	---
3	Thermic Fluid Heater-CPC Blue (10.0 Lac Kcal)	11	Natural Gas	120 m <sup>3</sup> /Hr	PM	---
	Steam Boiler (IBR) (6.30 TPH)			475 m <sup>3</sup> /Hr	SO2 NOx	
4	Steam Boiler (1 TPH)	11	Natural Gas	65 m <sup>3</sup> /Hr	PM SO2 NOx	---
5	Steam Boiler (0.6 TPH)	11	Natural Gas	46 m <sup>3</sup> /Hr	PM SO2	---

					NOx	
6	Hot Air Generator (45000 Kcal/Hr)	18	Agro Waste/ Briquettes	12.5 Kgs/Hr	PM SO2 NOx	Bag Filter
7	Steam Boiler (IBR) (4.50 TPH)	11	Natural Gas	400 m <sup>3</sup> /Hr	PM SO2 NOx	--
8	DG - 1000KVA	11	Diesel	100 Liter/hr	PM SO2 NOx	--
9	Thermic Fluid Heater- CPC Green -7 Blue (5.0 Lac Kcal)	11	Natural Gas	60 m <sup>3</sup> /Hr	PM SO2 NOx	--
EXISTING UTILITY OF PLOT NO: J- 1207						
10	Thermic Fluid Heater (3.0 Lac Kcal/hr)	11	Natural Gas	34 m <sup>3</sup> /Hr	PM SO2 NOx	--
11	DG – 100 KVA	11	Diesel	12.5 Liter/hr	PM SO2 NOx	--
EXISTING UTILITY OF PLOT NO: J- 1212						
12*	Boiler	15	Agro waste/ Briquette	10 MT/Month	PM SO2 NOx	--

- As we have obtained 179 KLD effluent discharge permission, our MEE capacity will be reduced hence steam consumption will also be decreased. So we are removing utility of plot no J- 1212 and using existing utility to cater the demand of steam for products of unit J-1212.

AFTER EC AMENDMENT

SR. no.	Source of emission With Capacity e.g. Boiler (8 TPH)	Stack Height (meter)	Name of the fuel	Quantity of Fuel MT/hr& MT/Day	Type of emissions i.e. Air Pollutants	APCM
LIST OF UTILITY						
1	Steam Boiler (IBR)- Green Plant (2.0TPH)	11	Natural Gas	125 m <sup>3</sup> /Hr	PM	--
	Thermic Fluid Heater –Green-7 (4.0 Lac Kcal)			45 m <sup>3</sup> /Hr	NOx	
2	Power Plant boiler/DG-125KVA	11	Natural Gas	--	PM SO2 NOx	---
3	Thermic Fluid Heater-CPC Blue (10.0 Lac Kcal)	11	Natural Gas	120 m <sup>3</sup> /Hr	PM	---
	Steam Boiler (IBR) (6.30 TPH)			475 m <sup>3</sup> /Hr	SO2 NOx	
4	Steam Boiler (1 TPH)	11	Natural Gas	65 m <sup>3</sup> /Hr	PM SO2 NOx	---

5	Steam Boiler (0.6 TPH)	11	Natural Gas	46 m <sup>3</sup> /Hr	PM SO2 NOx	---
6	Hot Air Generator (45000 Kcal/Hr)	18	Agro Waste/ Briquettes	12.5 Kgs/Hr	PM SO2 NOx	Bag Filter
7	Steam Boiler (IBR) (4.50 TPH)	11	Natural Gas	400 m <sup>3</sup> /Hr	PM SO2 NOx	--
8	DG - 1000KVA	11	Diesel	100 Liter/hr	PM SO2 NOx	--
9	Thermic Fluid Heater- CPC Green -7 Blue (5.0 Lac Kcal)	11	Natural Gas	60 m <sup>3</sup> /Hr	PM SO2 NOx	--
10	Thermic Fluid Heater (3.0 Lac Kcal/hr)	11	Natural Gas	34 m <sup>3</sup> /Hr	PM SO2 NOx	--
11	DG – 100 KVA	11	Diesel	12.5 Liter/hr	PM SO2 NOx	--
A.3 AIR (CONDITION NO 39)						
	Sr. no	Specific Source of emission	Type of emissio	Stack/Ve nt	Air Pollution Control Measures	

	(Name of the Product & Process)	n	Height (meter)	(APCM)
EXISTING PROESS GAS EMISSION OF PLOT NO J-1201,1202,1211,1213, 1208, 1209 & 1209/A				
1	Chlorination Reactor	HCl Cl <sub>2</sub>	15	Water Scrubber followed by Alkali Scrubber
2	Reactor (CPC Blue Plant)	NH <sub>3</sub>	15	Acid Scrubber
3	Hot Air Generator for SFD-Green-7. (1.8Lac Kcal)	PM	11	Bag Filter
4	Hot Air Generator for SFD-CPC Blue (7.0Lac Kcal)	PM	9	Bag Filter
5	Hot Air Generator for SFD(130000 Kcal/Hr)(BETA Blue)	PM	13	Bag Filter
6	Drowning Vessel	HCl	15	Two stage water scrubber
7	Hot Air Generator for SFD(130000 Kcal/Hr)(Alpha	PM	11	Bag Filter

	Blue)				
EXISTING PROCOESS GAS EMISSION OF PLOT NO J-1207					
8	Chlorination Reactor	HCl Cl <sub>2</sub>	15	Two stage Water Scrubber followed by Alkali Scrubber	
9	Drowning Vessel	HCl	15	Two stage water scrubber	
EXISTING PROCESS GAS EMISSION OF PLOT NO J-1212					
10	Sulphonation	SOx	13	Two stage alkali scrubber	

AFTER EC-AMENDMENT APPLICATION					
Sr. no.	Specific Source of emission (Name of the Product & Process)	Type of emission	Stack/Vent Height (meter)	Air Pollution Control Measures (APCM)	
PROEES GAS EMISSION					
1	Chlorination Reactor	HCl Cl <sub>2</sub>	15	Water Scrubber followed by Alkali Scrubber	
2	Reactor (CPC Blue Plant)	NH <sub>3</sub>	15	Acid Scrubber	
3	Hot Air Generator for SFD-Green-7. (1.8Lac Kcal)	PM	11	Bag Filter	
4	Hot Air Generator for	PM	9	Bag Filter	

		SFD-CPC Blue (7.0Lac Kcal)				
	5	Hot Air Generator for SFD(130000 Kcal/Hr)(BETA Blue)	PM	13	Bag Filter	
	6	Drowning Vessel	HCl	15	Two stage water scrubber	
	7	Hot Air Generator for SFD(130000 Kcal/Hr)(Alpha Blue)	PM	11	Bag Filter	
	8	Chlorination Reactor	HCl Cl <sub>2</sub>	15	Two stage Water Scrubber followed by Alkali Scrubber	
	9	Drowning Vessel	HCl	15	Two stage water scrubber	
	10	Sulphonation	SOx	13	Two stage alkali scrubber	

**A.4 SOLID/HAZARDOUS WASTE**

Sr . No.	Type/Nam e of Hazardous waste	Specific Source of generation (Name of the Activity, Product etc.)	Categor y and Schedul e as per HW Rules.	Quantity (MT/Annum)				Managemen t of HW
				Plot No J- 1202, 1208, 1209, 1209/A, 1211,	Plot No J -1207	Plot No J - 1212	Total	

				1213					
1.	ETP sludge/ Gypsum sludge	From Effluent Treatment Facility	35.3	4015	1440	--	5455	Collection, Storage, Transportati on, Disposal at by Cement factory or TSDf site authorized by the GPCB.	
2.	Used Oil	From Plant and Machinery	5.1	1.937	6	0.03	7.967	Collection, Storage, Transportati on, Disposal by Selling registered refiners.	
3.	Discarded containers / Empty barrels	From Raw Material Packing	33.1	82	12	100	194	Collection, Storage, Transportati on, Disposal by Selling to authorize recycler.	
4.	Empty bags / Liner	From Raw Material Packing	33.1	85	24	50	159	Collection, Storage, Transportati on, Disposal by Selling to	



								authorize recycler.
5.	MEE Salt*	From MEE	35.3	840	--	--	840	Collection, Storage, Transportati on, Disposal at available TSDf site authorized by the GPCB.
6.	Dust from air filtration system	From filtration system	26.2	0.010	--	--	0.010	Collection, storage, reuse in the process within factory premises.
7.	Solid Waste	From PAC manufactur ing	26.1	36	--	--	36	Collection, Storage, Transportati on, Disposal at available TSDf site.
8.	IMPURITY + COPPER	From Ammonium sulphate	26.1	84	--	--	84	Sell to GPCB approved Recycler.
9.	Hydrochlo ric Acid	From CPC Green-7 (Scrubber)	26.3	7500	3564	--	11064	Sale to actual user having permission under rule-9 or who have

								applied under rule-9.	
11	Spent sulphuric acid (18% to 20%)	From Alpha Blue	26.3	47520	--	--	47520	Sale to actual user having permission under rule-9 Or who have applied under rule-9	
12	Spent sulphuric acid (15% to 17%)	From CPC blue	26.3	6480	--	--	6480	Sale to actual user having permission under rule-9 Or who have applied under rule-9	
13	Spent Carbon	From Carbon Filter	36.2	--	0.6	--	0.6	Collection, Storage, Transportation and send to co-processing	
14	Aluminium Chloride solution	From CPC Green -7	--	43800	12000	--	55800	Collection, storage and convert it into Poly aluminium chloride solution through SOP & sell to open	

								market.
15	Sodium hypo chlorite (6%- 8%)	From CPC Green -7	--	8460	2640	--	11100	Prepared Sodium hypo chlorite solution (8% to 10%) through SOP & sell to open market.

- As per EC via no SEIAA/GUJ/EC/5(f)/519/2019 dated on 1<sup>st</sup>- April- 2019 and EC corrigendum via EC no SEIAA/GUJ/EC/5(f)/1305/2020 dated on 5<sup>th</sup> - November- 2020 of plot No. J-1201, 1202, 1211, 1213, 1208, 1209 & 1209/A, the MEE salt permission is 1935 MT/Annum which will be reduced to 840 MT/Annum.

**CHANGE NO 1:-**

M/s. Subhasri Pigments Pvt Ltd is located at plot No. J-1201,1202, 1211, 1213, 1208, 1209 & 1209/A, GIDC Industrial Estate, Ankleshwar, Dist.Bharuch. We had obtained EC via no SEIAA/GUJ/EC/5(f)/519/2019 dated on 1<sup>st</sup>-April- 2019 and EC corrigendum via EC no SEIAA/GUJ/EC/5(f)/1305/2020 (EC Corrigendum) dated on 5<sup>th</sup> - November- 2020.

They had also obtained EC on adjoining plot no: -J-1207 via no- SEIAA/GUJ/EC/5(f)/1104/2020 for CPC Green-7 of 100MT/Month.

They have also recently purchased plot no J-1212 adjoining plot of our unit. On this plot, we are also having valid CCA AWH-87737 valid up to 16-July- 2022. Now, the unit would like to merge the entire plot in EC-Amendment application. The plot amalgamation has also been done. Plot amalgamation letter is obtained.

**CHANGENO2:-**

They may also inform you that as per our EC via no SEIAA/GUJ/EC/5(f)/519/2019 dated on 1st- April- 2019 & SEIAA/GUJ/EC/5(f)/1104/2020, Sodium hypo chlorite solution and PAC are considered as hazardous waste. In EC amendment, they are seeking permission to consider PAC and Sodium Hypochlorite into in-organic product instead of hazardous wastes.

We may further inform you that we will convert both the waste into valuable in-organics products by following the SOP prepared by GPCB. Hence, we are eligible to get permission as an in-organic products..

### **CHANGE NO3:-**

M/s. Subhasri Pigments Pvt Ltd located at plot No. J-1201, 1202, 1211, 1213, 1208, 1209 & 1209/A, GIDC Industrial Estate, Ankleshwar, Dist. Bharuch are having EC: SEIAA/GUJ/EC/5(f)/519/2019 dated on 1st- April- 2019 and EC corrigendum via EC no SEIAA/GUJ/EC/5(f)/1305/2020 dated on 5th - November- 2020. Now the unit has obtained additional 179 KLD discharge permission into M/s. NCTL. Hence, total effluent discharge quantity will be increased from 230.2 KLD to 409.2 KLD.

Conditions of water & waste water of EC no. SEIAA/GUJ/EC/5(f)/1104/2020 (Plot No J-1207) & CCA AWH-87737 (1212) will not be changed. In EC no. SEIAA/GUJ/EC/5(f)/1104/2020, the unit is a member of M/s. BEIL. As per the CCA- AWH-87737, the unit is a member of M/s. ETL for 4.8 KLD which will also continue.

Present status of the EC obtained for which amendment sought:

- SEIAA/GUJ/EC/5(f)/519/2019, dated on 1<sup>st</sup> April 2019 & SEIAA/GUJ/EC/5(f)/1305/2020 (EC Corrigendum), dated on 5<sup>th</sup> November 2020 (PLOT NO: J-1201,1202,1211,1213,1208,1209,&1209/A) – The unit has applied for the CCA.
- SEIAA/GUJ/EC/5(f)/1104/2020, dated on 30<sup>th</sup> September 2020 (PLOT NO: J-1207) – The unit has obtained CTE. Still unit has not applied for the CCA.

### **2. Details regarding proposed changes:**

- SEIAA/GUJ/EC/5(f)/519/2019&SEIAA/GUJ/EC/5(f)/1305/2020 (EC Corrigendum) - Conditions are written down in red font. (PLOT NO: J-1201,1202,1211,1213,1208,1209,&1209/A)
- SEIAA/GUJ/EC/5(f)/1104/2020 – Conditions are written down in green font.(PLOT NO: J-1207)
- Note: - We may inform you that on plot no J- 1212, the unit is having valid consent no, AWH- 87737 in which unit is having 6 KLD fresh water permission and 4.8 KLD discharge permission. ( Industrial :- 3.8 KLD + Domestic :- 1 KLD) – Changes due to this consent in proposed amendment is written down in blue font.(PLOT NO: J-1212)

- PP was called for presentation in the SEAC meeting dated 22.03.2021.
- During the meeting dated 22.03.2021, technical presentation made during the meeting by technical expert of PP, M/s Jyoti Om Chemical Research Centre Pvt. Ltd. and project proponent.
- PP presented that they have applied for following EC-Amendment cum Merger:
  - ✓ Plot amalgamation of adjoining plots.
  - ✓ To convert sodium hypo chlorite solution and Poly aluminium chloride solution from hazardous waste to in-organic products by preparing it through SOP.

- ✓ To get additional 179 KLD discharge permission into M/s. NCTL.
- ✓ PP presented plot amalgamation letter for M/s Subhasri Pigments Pvt Ltd at Plot No. J-1201, 1202, 1211, 1213, 1208, 1209 & 1209/A, J-1207 & J-1212, GIDC Ankleshwar.
- ✓ Committee noted that M/s Subhasri Pigments Pvt Ltd located at Plot No. J-1201, 1202, 1211, 1213, 1208, 1209 & 1209/A, GIDC Ankleshwar and M/s Subhasri Pigments Pvt Ltd located at Plot No. J-1207, GIDC Ankleshwar has obtained EC from SEIAA, Gujarat are two sister concerned units.
- ✓ Further, M/s Supernova Intermediates Pvt. Ltd. located at Plot No. J-1212, GIDC Ankleshwar has not obtained EC and obtained CCA of the GPCB.
- Committee deliberated on considering PAC and Sodium Hypochlorite as in-organic products instead of hazardous wastes for which SOP under Rule-9 of Hazardous and Other Waste Rules-2016 is prepared by CPCB.
- Committee insisted that for manufacturing of PAC, Aluminum Chloride is to be mentioned as hazardous waste and for manufacturing of Sodium Hypochlorite, spent Sodium Hypochlorite is to be mentioned as hazardous waste.
- Upon asking regarding CCA-Amendment of name change of M/s Supernova Intermediates Pvt. Ltd. to M/s Subhasri Pigments Pvt Ltd, PP informed that they have not obtained CTE/CCA-Amendment for name change.
- **After detailed discussion, it was decided to defer the project and consider the proposal only after submission of the following documents along with adequate brief presentation of proposed project:**
  1. GIDC Plot transfer letter from M/s Supernova Intermediates Pvt. Ltd. to M/s Subhasri Pigments Pvt Ltd.
  2. Copy of CTE/CCA-Amendment for name change from M/s Supernova Intermediates Pvt Ltd to M/s Subhasri Pigments Pvt Ltd.
  3. The purpose of application for amalgamation of three units for which earlier two separate Environmental Clearances are obtained.
  4. The revised Site Plan/ layout with color coding of two separate components as approved in earlier ECs and distance between each components. Also submit the fire evacuation plan mentioning the sprinklers system, fire extinguishers, assembly points, etc.
  5. The Fire NOC obtained for the existing /on-going plant.
  6. The addendum to EIA report.
  7. The Resolution of Board of Director for amalgamation of three units.
  8. The Certificate of Registration after amalgamation of three units.
  9. The notarized undertaking regarding no changes in facilities and everything remains same as per the existing Environmental Clearances/Permissions. Give technical justification in tabular format.
  10. Revised hazardous waste matrix mentioning Aluminium Chloride and spent sodium hypochlorite as hazardous waste.
- PP submitted reply of above query generated on SEAC VC meeting dated 22/03/2021, through e-mail.
- This proposal is reconsidered in SEAC meeting dated **05.08.2021**. PP along with their technical

expert/consultant, M/s. Jyoti Om Chemical Research Centre Pvt. Ltd remains present in the meeting and made presentation before Committee.

- PP presented M/s. Supernova Intermediates located at Plot No: 1212 which is transferred to M/s. Subhasri Pigments Pvt Ltd and Copy of CCA-Amendment for name change from M/s Supernova Intermediates Pvt Ltd to M/s Subhasri Pigments Pvt Ltd.
- Looking to purpose of plot amalgamation in one name of M/s. Subhasri Pigments Pvt Ltd, Committee insisted for clarification regarding change of product namely CPC Alpha blue mfg plant (earlier proposed on plot no J-1201,1202,1211,1213,1208,1209 & 1209/A), Sodium hypochlorite solution mfg plant , PAC mfg plant, OHC centre, Fire hydrant network storage tank etc to plot no- 1212 along with authenticated proof regarding change of location of CPC Alpha blue mfg plant at earlier proposed on plot no J-1201,1202,1211,1213,1208,1209 & 1209/A into plot no-1212. Technical expert of PP informed that they have obtained Amalgamation order for all plot merger in name of M/s. Subhasri Pigments Pvt Ltd and reason of shifting namely CPC Alpha blue mfg plant (earlier proposed on plot no J-1201, 1202,1211,1213,1208,1209 & 1209/A), Sodium hypochlorite solution mfg plant , PAC mfg plant, OHC centre, Fire hydrant network storage tank etc for reason of safety point of view but not addressed properly during meeting. Hence Committee insisted for technical justification regarding location change in EC order with authenticated MoEF & CC Office Memorandum regarding it and purpose of it for safety purpose with concrete reason for change of production plant and other facility with technical details in place of remaining as per EC accorded at plot no- J-1201,1202,1211,1213,1208,1209 & 1209/A. Also Committee insisted for submission of layout plan at the time of EC application submitted for EC order of M/s. Subhasri Pigments Pvt. Ltd, located at plot no J-1201,1202,1211,1213,1208,1209 & 1209/A and revised layout plan with shifting of facility of CPC Alpha blue mfg plant, Sodium hypochlorite solution mfg plant , PAC mfg plant, OHC centre, Fire hydrant network storage tank etc from earlier proposed on plot no J-1201,1202,1211,1213,1208,1209 & 1209/A and now on plot no- 1212 with color coding of it in both layout plan
- Looking to reply of query of meeting dated 22/03/2021 presented by PP, Committee insisted for submission of following revised documents along with addendum in EIA reports and subsequent changes in Water, Air and Hazardous waste matrix, EMP and EC-amendment form uploaded in Parivesh portal,
  1. Revised Hazardous waste matrix with mentioning disposal of Aluminium chloride solution and Sodium hypo chlorite (6%- 8%) as per Hazardous Waste Rules'2016 in place of Collection, storage and convert it into Poly aluminium chloride solution through SOP & sell to open market and Prepared Sodium hypo chlorite solution (8% to 10%) through SOP & sell to open market along with justification regarding misleading information submitted by PP regarding it.
  2. Submission of copy of Surrender of M/s ETL, Ankleshwar membership certificate, looking to single disposal of waste water to M/s NCTL, FETP in place of dual disposal of waste water to M/s ETL, Ankleshwar and M/s NCTL, FETP.
  3. Revised water balance diagram considering existing CCA for industrial waste water disposal quantity into M/s NCT in place of proposal submitted by waste water disposal to M/s NCTL, FETP , considering GPCB permission letter dated 19/12/2018 for additional waste water discharge to M/s

NCT allocated by GPCB to the unit.

• **After detailed discussion, it was once again decided to consider the proposal in one of upcoming meeting only after satisfactory submission of the following documents:**

1. Technical justification regarding location change in EC order with authenticated MoEF & CC Office Memorandum regarding it. Also purpose for location change of concrete reason, for change of product namely CPC Alpha blue mfg plant (earlier proposed on plot no J-1201,1202,1211,1213,1208,1209 & 1209/A), Sodium hypochlorite solution mfg plant , PAC mfg plant, OHC centre, Fire hydrant network storage tank etc to plot no- 1212 with technical details in place of remaining as per EC accorded at plot no- J-1201,1202,1211,1213,1208,1209 & 1209/A. which is differ than the notarized undertaking regarding no changes in facilities and everything remains same as per the existing Environmental Clearances/Permissions.
2. Submission of layout plan at the time of EC application submitted for EC order of M/s. Subhasri Pigments Pvt. Ltd, located at plot no J-1201,1202,1211,1213,1208,1209 & 1209/A and revised layout plan with shifting of facility of CPC Alpha blue mfg plant, Sodium hypochlorite solution mfg plant , PAC mfg plant, OHC centre, Fire hydrant network storage tank etc from earlier proposed on plot no J-1201,1202,1211,1213,1208,1209 & 1209/A and now on plot no-1212 with color coding of it in both layout plan.
3. Revised Hazardous waste matrix with mentioning disposal of Aluminium chloride solution and Sodium hypo chlorite (6%- 8%) as per Hazardous Waste Rules'2016 in place of Collection, storage and convert it into Poly aluminium chloride solution through SOP & sell to open market and Prepared Sodium hypo chlorite solution (8% to 10%) through SOP & sell to open market along with justification regarding misleading information submitted by PP regarding it.
4. Submission of copy of Surrender of M/s ETL, Ankleshwar membership certificate, looking to single disposal of waste water to M/s NCTL, FETP in place of dual disposal of waste water to M/s ETL, Ankleshwar and M/s NCTL, FETP.
5. Revised water balance diagram considering existing CCA for industrial waste water disposal quantity into M/s NCT in place of proposal submitted by waste water disposal to M/s NCTL, FETP , considering GPCB permission letter dated 19/12/2018 for additional waste water discharge to M/s NCT allocated by GPCB to the unit.
6. Addendum in EIA reports considering all above changes for amalgamation application and subsequent changes in Water, Air and Hazardous waste matrix, EMP, CER and EC-amendment form, uploaded in Parivesh portal.

2.	SIA/GJ/IND2/195698/2021	<b>M/s. Chemcrux Enterprises Ltd.</b>  Plot No 4712-14,Gidc Estate Ankleshwar,Ta-Ankleshwar, Dist - Bharuch	EC-Reconsideration
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Category of the unit: **5(f)**

**Project status: Expansion**

- Project proponent (PP) submitted online application vide no. SIA/GJ/IND2/195698/2021 on dated 03.02.2021 for obtaining Environmental Clearance.
- Project proponent has submitted Form – 1, Pre-Feasibility Report & Environment Management Plan as per Notification issued by MoEF&CC vide S.O. 1223(E) dated 27th March, 2020 regarding consideration of proposals or activities in respect of Active Pharmaceuticals Ingredients (API) as B2 category.
- This is an existing unit proposed for manufacturing of synthetic organic chemicals [**API and API Intermediates**] as tabulated below.

Sr. no.	Name of the Products	CAS no. / CI no.	Quantity MT/Month			Quantity MT/An num	End-use of the products
			Existing	Proposed Increase/Decrease	Total		
<b>1. BENZOIC ACID DERIVATIVE:</b>							
1.	Para Chloro Benzoic Acid	74-11-3	50	0	50	600	Intermediate of Mebendazole
2	Ortho Chloro Benzoic Acid	118-91-2					Intermediate of Mefenamic Acid & Mesalamine
3	Meta Chloro Benzoic Acid	535-80-8					Intermediate of Brupropion
4	Para Nitro Benzoic Acid	62-23-7					Intermediate of Folic Acid
5	Ortho Nitro Benzoic Acid	552-16-9					Intermediate of Tolfenamic Acid
6	Meta Nitro Benzoic Acid	121-92-6					Intermediate of Ertapenem
7	2,4 Di Chloro Benzoic Acid	50-80-0					Intermediate of Furosemide
8	3,4 Di Chloro Benzoic Acid	51-44-5					Intermediate of Sertraline
9	2,3 Di Chloro Benzoic Acid	50-45-3					Intermediate of Lamotrigine
10	Sodium Arabonate (Arabonic Acid Sodium Salt)	30418-45-2					Intermediate of Xylenol
11	Meta Bromo Benzoic Acid	585-76-2					Intermediate of 6 Bromo-3Hisobenzofuran-1-one
12	Ortho Bromo Benzoic Acid	88-65-3					Intermediate of NitroImmidazole amine
13	Para Bromo Benzoic	586-76-5					Intermediate of



	Acid						Tazarotene
<b>2. NITRO BENZOIC ACID DERIVATIVE</b>							
1	3 Nitro 4 Chloro Benzoic Acid	96-99-1	33.33	0	33.33	399.9	Intermediate of Mebendazole
2	2 Chloro 5 Nitro Benzoic Acid	2516-96-3					Intermediate of Mesalamine
3	2 Chloro 3 Nitro Benzoic acid	3970-35-2					Intermediate of Tucoresol
4	4 Chloro 3,5 Di Nitro Benzoic Acid	118-97-8					Used in synthesis of anti-cancer drug
5	2 Chloro 3,5 Di Nitro Benzoic Acid	2497-91-8					Intermediate of Picric Acid
6	4 Chloro 2 Nitro Benzoic Acid	6280-88-2					Intermediate of Quinethazone
<b>3. AMINO BENZOIC ACID DERIVATIVE</b>							
1	Para Amino Benzoic Acid	150-13-0	250	0	250	3000	Intermediate of Benzocaine
2	Ortho Amino Benzoic Acid	118-92-3					Intermediate of Tolfenamic Acid
3	Meta Amino Benzoic Acid	99-05-8					Intermediate of Chlortalidone & Suramin sodium
4	4 Chloro 3 Amino Benzoic acid	59158-04-2					Intermediate of Mebendazole
5	2 Chloro 5 Amino Benzoic Acid	89-54-3					Intermediate of Mesalamine
6	2 Chloro 3 Amino Benzoic acid	108679-71-6					Intermediate of Lenalidomide
7	3,4 Di Amino Benzophenone	39070-63-8					Intermediate of Mebendazole
8	2 Chloro 4 Amino Benzoic Acid	2457-76-3					Intermediate of Chlorprocaine
9	4 Chloro 2 Amino Benzoic Acid	89-77-0					Intermediate of Quinethazone
<b>4. BENZOYL CHLORIDE DERIVATIVE</b>							
1	Benzoyl Chloride	98-88-4	25	0	25	300	Intermediate of Diphenhydramine Hydrochloride
2	Para Chloro Benzoyl Chloride	122-01-0					Intermediate of Moclobemide
3	Ortho Chloro Benzoyl Chloride	609-65-4					Intermediate of Clonazepam
4	Meta Chloro Benzoyl Chloride	618-46-2					Intermediate of Omeprazole
5	Para Nitro Benzoyl Chloride	122-04-3					Intermediate of Procaineamide Hydrochloride
6	Ortho Nitro Benzoyl Chloride	610-14-0					Intermediate of Pirenzepine & Glephenine
7	Meta Nitro Benzoyl Chloride	121-90-4					Intermediate of Ketoprofen
8	2,4 Di Chloro Benzoyl Chloride	89-75-8					Intermediate of Lonidamine

9	3,4 Di Chloro Benzoyl Chloride	3024-72-4					Intermediate of Sertraline
10	2,3 Di Chloro Benzoyl Chloride	2905-60-4					Intermediate of Lamotrigine
11	3 Nitro 4 Chloro Benzoyl Chloride	38818-50-7					Intermediate of Mebendazole
12	2 Chloro 5 Nitro Benzoyl Chloride	25784-91-2					Intermediate of Nitroxazepine
13	2 Chloro 3 Nitro Benzoyl Chloride	34128-16-0					Intermediate of Dabigatran
14	2 Chloro 4 Nitro Benzoyl Chloride	7073-36-1					Intermediate of chloroprocaine
15	4 Chloro 2 Nitro Benzoyl Chloride	41995-04-4					Intermediate of Lodipamide
16	Meta Bromo Benzoyl Chloride	1711-09-7					Intermediate of Quinoxaline Base Drug
17	Ortho Bromo Benzoyl Chloride	7154-66-7					Intermediate of Bretylium Tosilate
18	Para Bromo Benzoyl Chloride	586-75-4					Intermediate of Tazarotene
<b>5. SULFOMOYL BENZOIC ACID DERIVATIVE</b>							
1	4 Chloro Sulfomoyl Benzoic Acid	1205-30-7					Intermediate of Clopamide
2	2 Chloro Sulfomoyl Benzoic Acid	97-04-1					Intermediate of Estradiol Sulfamate
3	3 Chloro Sulfomoyl Benzoic Acid	4025-64-3					Used to manufacture API and Pigments
4	4 Nitro Sulfomoyl Benzoic Acid	--					Used to manufacture API and Pigments
5	2 Nitro Sulfomoyl Benzoic Acid	--					Used to manufacture API
6	3 Nitro Sulfomoyl Benzoic Acid	--	25	0	25	300	Used to manufacture API
7	2,4 Di Chloro Sulfomoyl Benzoic Acid (Lasamide)	2736-23-4					Intermediate of Furosemide
8	3,4 Di Chloro Sulfomoyl Benzoic Acid	--					Used to manufacture API and Pigments
9	2,3 Di Chloro Sulfomoyl Benzoic Acid	--					Used to manufacture API and Pigments
10	3 Nitro 4 Chloro Sulfomoyl Benzoic Acid	22892-96-2					Intermediate of Bumetanide
11	2 Chloro 5 Nitro Sulfomoyl Benzoic Acid	--					Used to manufacture

								API and Pigments
12	2 Chloro 3 Nitro Sulfomoyl Benzoic Acid	--						Used to manufacture API and Pigments
13	Acetyl Beta Phenyl Ethyl Amine (BPEA) Sulfonamide	35303-76-5						Intermediate of Glibenclamide
<b>6. METHOXY BENZOIC ACID DERIVATIVE</b>								
1	Para Methoxy Benzoic Acid	100-09-4						Intermediate of Aliskiren
2	Ortho Methoxy Benzoic Acid	579-75-9						Intermediate of Amisulpride
3	Meta Methoxy Benzoic Acid	586-38-9						Intermediate of Zafirlukast
4	3 Nitro 4 Methoxy Benzoic Acid	89-41-8						Used to manufacture API
5	2 Nitro 4 Methoxy Benzoic Acid	6280-89-3	12.5	0	12.5	150		Used to manufacture API and Pigments
6	4 Nitro 2 Methoxy Benzoic Acid	33234-36-5						Used to manufacture API and Pigments
7	5 Nitro 2 Methoxy Benzoic Acid	--						Intermediate of Batrixaban
<b>7. CHLORO TOLUENES</b>								
1	Para Chloro Toluene	106-43-4						Intermediate of Mebendazole
2	Di Chloro Toluene	95-73-8	2.5	-2.5	0	0		Intermediate of Furosemide
3	Mix Di Chloro Toluene	--						Intermediate of Furosemide
<b>8. BENZO NITRILE DERIVATIVES</b>								
1	2 Chloro 5 Nitro Benzo Nitrile	16588-02-6						Intermediate of Mesalamine
2	3 Nitro 4 Chloro Benzo Nitrile	939-80-0						Intermediate of Indapamide
3	2, 3 Di Chloro Benzo Nitrile	6574-97-6						Intermediate of Ticlatone
4	3, 4 Di Chloro Benzo Nitrile	6574-99-8						Intermediate of Sertraline
5	2, 4 Di Chloro Benzo Nitrile	6574-98-7	25	0	25	300		Intermediate of Glibenclamide
6	Meta Nitro Benzo Nitrile	619-24-9						Intermediate of Ertapenem
7	Para Nitro Benzo Nitrile	619-72-7						Intermediate of Diminazineaceturate
8	Meta Chloro Benzo Nitrile	766-84-7						Intermediate of Brupropion
9	Ortho Chloro Benzo Nitrile	873-32-5						Intermediate of Tri-

	Nitrile						n-butylne Chloride
10	Para ChloroBenzo Nitrile	623-03-0					Intermediate of Pyrimethamine
11	2 Chloro 3 Nitro Benzo Nitrile	34662-24-3					Intermediate of Glucocorticoids & acibenzolar s methyl
12	2 Chloro 4 Nitro Benzo Nitrile	28163-00-0					Intermediate of Rivanol
13	4 Chloro 2 Nitro Benzo Nitrile	34662-32-3					Intermediate of Veterinary Drug
14	Meta BromoBenzo Nitrile	6952-59-6					Intermediate of GSK 3 Inhibitor
15	Ortho BromoBenzo Nitrile	2042-37-7					Intermediate of NitroImmidazole amine
16	Ortho Nitro Benzo Nitrile	612-24-8					Intermediate of Tolfenamic Acid
17	Para BromoBenzo Nitrile	623-00-7					Intermediate of Triazines
9. BENZAMIDE DERIVATIVE							
1	2 Chloro 3 Nitro Benzamide	117054-76-9					Intermediate of Glucocorticoids & acibenzolar s methyl
2	2 Chloro 4 Nitro Benzamide	3011-89-0					Intermediate of Aklomide
3	2 Chloro 5 Nitro Benzamide	16588-15-1					Intermediate of Mesalamine
4	2, 3 Di ChloroBenzamide	5980-24-5					Intermediate of Lamotrigine
5	2, 4 Di ChloroBenzamide	2447-79-2					Intermediate of Furosemide
6	3, 4 Di ChloroBenzamide	2670-38-4	25	0	25	300	Intermediate of Sertraline
7	4 Chloro 2 Nitro Benzamide	3011-890					Intermediate of Veterinary Drug
8	4 Chloro 3 Nitro Benzamide	16588-06-0					Intermediate of Indapamide
9	Meta BromoBenzamide	22726-00-7					Intermediate of GSK 3 Inhibitor
10	Meta ChloroBenzamide	618-48-4					Intermediate of Brupropion
11	Meta Nitro Benzamide	645-09-0					Intermediate of Veterinary Drug
12	Ortho BromoBenzamide	4001-73-4					Intermediate of Veterinary Drug
13	Ortho ChloroBenzamide	609-66-5					Intermediate of Trifluoron
14	Ortho Nitro Benzamide	610-15-1					Intermediate of Tolfenamic Acid

15	Para BromoBenzamide	698-67-9					Intermediate of DiminazineDiacet urate
16	Para ChloroBenzamide	619-56-7					Intermediate of Pyrimethamine
17	Para Nitro Benzamide	619-80-7					Intermediate of DiminazineDiacet urate
10	2 Amino Benzoic Sulfonamide	137-65-5	12.5	0	12.5	150	Intermediate of EstradiolSulfamate
11	Thio Salicylic Acid	147-93-3	12.5	-12.5	0	0	Intermediate of Thianaphene
12	Aceturic Acid	543-24-8	2	0	2	24	Intermediate of D - Thyroxin
13	Maleic Acid	110-16-7	13	-13	0	0	Intermediate of Pyridoindolone
Total Existing			488.33	-28	460.33	5523.96	
<b>PROPOSED PRODUCTS</b>							
14	BPEA Sulfonamide (n-2)	31431-39-7	0	10	10	120	Manufacturing of Glibenclamide Sulfonamide & Glipizide Sulfonamide
15	Glibenclamide Sulfonamide (n-1)	16673-34-00					Manufacturing of Glibenclamide
16	Glipizide Sulfonamide (n-1)	33288-71-0					Manufacturing of Glipizide
17	PCBA Sulfonamide (n-1)	1205-30-7					Manufacturing of Indapamide or clopamide
18	Indapamide (API)	26807-65-8	0	15	15	180	Anti Hypertensive & Diuretic
19	Clopamide (API)	636-54-4					Anti Hypertensive & Diuretic
20	Para Nitro Benzoic Acid (n-2)	150-13-0					Manufacturing of Para Amino Benzoic Acid
21	Para Amino Benzoic Acid (n-1)	62-23-7	0	100	100	1200	Manufacturing of Benzocain
22	Benzocain (API)	94-09-7					Pain Reliever & Vitamin B
23	2 Chloro 5 Nitro Benzoic Acid (n-2)	96-97-9	0	50	50	600	Manufacturing of 5 Nitro Salicylic

							Acid
24	5 Nitro Salicylic Acid (n-1)	2516-96-3					Manufacturing of Mesalamine
25	Mesalamine (API)	89-57-6					Bowel Disorder
26	4 Chloro 3 Nitro Benzoic Acid (n-3)	39070-63-8					Manufacturing of 4 Chloro 3 Nitro Benzophenone
27	4 Chloro 3 Nitro Benzophenone (n-2)	56107-02-9	0	100	100	1200	Manufacturing of 3 4 Di Amino Benzophenone
28	3 4 Di Amino Benzophenone (n-1)	96-99-1					Manufacturing of Mebendazole
29	2,4 Di Chloro Benzoic Acid (n-2)	2736-23-4					Manufacturing of Lasamide(2,4 Di Chloro Benzoic Acid 5 Sulfonamide)
30	Lasamide(2,4 Di Chloro Benzoic Acid 5 Sulfonamide) (n-1)	50-80-7	0	100	100	1200	Manufacturing of Furosemide
	R & D		0	0.1	0.1	1.2	
	Proposed Total		0	375.1 MT/M	375.1MT /M	4501.2	--
	Existing + Proposed Total		488.33 MT/M	Increase Quantity 347.1 MT/M	835.43 MT/M	10025.16	--

**Brief Note of Product Profile:**

- No of Manufacturing Plants: 3no.s**
- Brief Note regarding number of Products to be manufactured considering plant capacity:**

**Specific End-use of each proposed products:**

Sr. No	Name of the Product	CAS No. (Product)	Type/ Category of Product (API/ Intermediate)	In case of Intermediate stage of API		SaidAPIisused for/EndUseofsaidAPI
				NameofAPIinwhi ch IntermediateUsed /End use of said Intermediate	CAS No. (API)	
1.	BENZOIC CID DERIVATIVES					
1	Para ChloroBenzoic Acid	74-11-3	Intermediate	Mebendazole	31431-39-7	Anthelmintic or Anti Worm Medicine

2	Ortho ChloroBenzoic Acid	118-91-2	Intermediate	Mefenamic Acid & Mesalamine	61-68-7 89-57-6	Anti Inflammatory To treat bowel disease
3	Meta ChloroBenzoic Acid	535-80-8	Intermediate	Brupropion	34841-39-9	For Treating Depressive Disorder & Quit Smoking
4	Para Nitro Benzoic Acid	62-23-7	Intermediate	Folic Acid & Benzocain	59-30-3 94-09-7	Folic Acid (Vitamin B) Deficiency Pain Reliever
5	Ortho Nitro Benzoic Acid	552-16-9	Intermediate	Tolfenamic Acid	13710-19-5	For treatment of Migraine
6	Meta Nitro Benzoic Acid	121-92-6	Intermediate	Ertapenem	153832-38-3	Antibiotic
7	2,4DiChloro Benzoic Acid	50-80-0	Intermediate	Furosemide	54-31-9	Diuretic
8	3,4DiChloro Benzoic Acid	51-44-5	Intermediate	Sertraline	79617-96-2	Anti Depressant
9	2,3DiChloro Benzoic Acid	50-45-3	Intermediate	Lamotrigine	84057-84-1	Anti Epileptic
10	Sodium Arabonate	30418-45-2	Intermediate	Xylenol	1300-71-6	Sugar Free
11	Meta Bromo Benzoic Acid	585-76-2	Intermediate	6 Bromo-3H-isobenzofuran-1-one	19477-73-7	Anti Palatal Activity
12	Ortho Bromo Benzoic Acid	88-65-3	Intermediate	NitroImmidazole amine	527-73-1	Veterinary Drug
13	Para Bromo Benzoic Acid	586-76-5	Intermediate	Tazarotene	118392-40-3	Anti acne & Psoriasis
2	NITRO BENZOIC ACID DERIVATIVES					
1	3 Nitro 4 Chloro Benzoic Acid	96-99-1	Intermediate	Mebendazole	31431-39-7	Anthelmintic or Anti Worm Medicine
2	2 Chloro 5 Nitro Benzoic Acid	2516-96-3	Intermediate	Mesalamine	89-57-6	To treat bowel disease
3	2 Chloro 3 Nitro Benzoic acid	3970-35-2	Intermediate	Tucoresol	84290-27-7	Invenstigational HIV Drug
4	4 Chloro 3,5 Di Nitro Benzoic Acid	118-97-8	Intermediate	Used in synthesis of anti-cancer drug	--	Used in synthesis of anti-cancer drug

5	2 Chloro 3,5 Di Nitro Benzoic Acid	2497-91-8	Intermediate	Picric Acid	88-89-1	Antisepctic/Burn Treatment
6	4 Chloro 2 Nitro Benzoic Acid	6280-88-2	Intermediate	Quinethazone	73-49-4	Diuretic
3	AMINO BENZOIC ACID DERIVATIVES					
1	Para Amino Benzoic Acid	150-13-0	Intermediate	Benzocaine	94-09-7	Pain reliever
2	OrthoAmino Benzoic Acid	118-92-3	Intermediate	Tolfenamic Acid	13710-19-5	For treatment of Migrain
3	MetaAmino Benzoic Acid	99-05-8	Intermediate	Chlortalidone & Suramin sodium	77-36-1	Hyper Tension
4	4 Chloro 3 Amino Benzoic acid	2840-28-0	Intermediate	Mebendazole	31431-39-7	Anthelmintic or Anti Worm Medicine
5	2 Chloro 5 Amino Benzoic Acid	89-54-3	Intermediate	Mesalamine	89-57-6	To treat bowel disease
6	2 Chloro 3 Amino Benzoic acid	108679-71-6	Intermediate	Lenalidomide	191732-72-6	Oncology
7	3,4 Di Amino Benzophenone	39070-63-8	Intermediate	Mebendazole	31431-39-7	Anthelmintic or Anti Worm Medicine
8	2 Chloro 4 Amino Benzoic Acid	2457-76-3	Intermediate	Chloroprocaine	133-16-4	Anesthetic(Local)
9	4 Chloro 2 Amino Benzoic Acid	89-77-0	Intermediate	Quinethazone	73-49-4	Diuretic
4	BENZOYL CHLORIDE DERIVATIVES					
1	Benzoyl Chloride	98-88-4	Intermediate	Diphenhydramine Hydrochloride	58-73-1	Anti allergic
2	Para Chloro Benzoyl Chloride	122-01-0	Intermediate	Moclobemide	713 20-77-9	Anti Depressant
3	Ortho Chloro Benzoyl Chloride	609-65-4	Intermediate	Clonazepam	378-44-9	Tranquiliser



4	Meta Chloro Benzoyl Chloride	618-46-2	Intermediate	Omeprazole	73590-58-6	Antacid
5	Para Nitro Benzoyl Chloride	122-04-3	Intermediate	ProcaineamideHydrochloride	614-39-1	Antiarrhythmic
6	Ortho Nitro Benzoyl Chloride	610-14-0	Intermediate	Pirenzepine&Glephenine	28797-61-7&3820-67-5	Antiulcerative& Anti inflammatory
7	Meta Nitro Benzoyl Chloride	121-90-4	Intermediate	Ketoprofen	22071-15-4	NonsteroidalAntiinflammatory Drug
8	2,4 DiChloro Benzoyl Chloride	89-75-8	Intermediate	Lonidamine	50264-69-2	Anti cancer
9	3,4 DiChloro Benzoyl Chloride	3024-72-4	Intermediate	Sertraline	79617-96-2	Anti Depressant
10	2,3 Di ChloroBenzoyl Chloride	2905-60-4	Intermediate	Lamotrigine	84057-84-1	Anti Epileptic
11	3Nitro4 ChloroBenzoyl Chloride	38818-50-7	Intermediate	Mebendazole	31431-39-7	Anthelmintic or Anti Worm Medicine
12	2 Chloro 5 Nitro Benzoyl Chloride	25784-91-2	Intermediate	Nitroxazepine	16398-39-3	Anti Depressant
13	2 Chloro 3 Nitro Benzoyl Chloride	34128-16-0	Intermediate	Dabigatran	211915-06-9	Anti Coagulant
14	2 Chloro 4 Nitro Benzoyl Chloride	7073-36-1	Intermediate	chloroprocaine	133-16-4	Anesthetic(Local)
15	4 Chloro 2 Nitro Benzoyl Chloride	41995-04-4	Intermediate	Lodipamide	3521-84-4	Liver Treatment
16	Meta BromoBenzoyl Chloride	1711-09-7	Intermediate	QuinoxalineBase Drug	290-37-9	Anti Cancer
17	Ortho BromoBenzoyl Chloride	7154-66-7	Intermediate	BretyliumTosilate	59-41-6	AntiarrhythmicAgent
18	Para Bromo Benzoyl Chloride	586-75-4	Intermediate	Tazarotene	118392-40-3	Anti Acne, Psoriasis
5	SULFAMOYL BENZOIC ACID DERIVATIVES					

1	4Chloro5 Sulfomoyl Benzoic Acid	1205-30-7	Intermediate	Clopamide	636-54-4	Diuretic
2	2 Chloro 5 SulfomoylBenzoic Acid	97-04-1	Intermediate	--	172377-52-5	steroid sulfatase (STS) inhibitor for the treatment of endometriosis. Also used in Pigments
3	3Chloro4 Sulfomoyl Benzoic Acid	34263-53-1	Intermediate	--	--	Diuretic and pigments
4	4 Nitro 2 SulfomoylBenzoic Acid	89795-77-7	Intermediate	--	--	Anti Inflammatoryandalso used in pigments
5	2 Nitro 4 Sulfomoyl Benzoic Acid	29092-31-7	Intermediate	--	--	Analgesic
6	3 Nitro 5 Sulfomoyl Benzoic Acid	860562-97-6	Intermediate	--	--	Diuretic
7	2,4 Di Chloro5 Sulfomoyl Benzoic Acid	2736-23-4	Intermediate	--	54-31-9	Diuretic
	(Lasamide)					
8	3,4 Di Chloro5 Sulfomoyl Benzoic Acid	62971-57-7	Intermediate	Used to manufacture API and Pigments	--	Treatment of ulcerand pigments
9	2,3 Di Chloro5 Sulfomoyl Benzoic Acid	869965-83-3	Intermediate	Used to manufacture API and Pigments	--	Treatment of cancer and in pigments
10	3 Nitro 4 Chloro 5 SulfomoylBenzoic Acid	22892-96-2	Intermediate	Bumetanide	28395-03-1	Swelling and high blood pressure
11	2 Chloro 5 Nitro 3 SulfomoylBenzoic Acid	--	Intermediate	Used to manufacture API and Pigments	--	Pain reliefand pigments
12	2 Chloro 3 Nitro 5 SulfomoylBenzoic Acid	--	Intermediate	Used to manufacture API and Pigments	--	Diuretic and pigments

13	Acetyl Beta Phenyl Ethyl Amine(BPEA) Sulfonamide	35303-76-5	Intermediate	Glibenclamide	10238-21-8	Anti Diabetic
6	METHOXY BENZOIC ACID DERIVATIVES					
1	Para Methoxy Benzoic Acid	100-09-4	Intermediate	Aliskiren	173334-58-2	Hyper Tension
2	Ortho Methoxy Benzoic Acid	579-75-9	Intermediate	Amisulpride	53583-79-2	Antiemetic and antipsychotic
3	Meta Methoxy Benzoic Acid	586-38-9	Intermediate	Zafirlukast	107753-78-6	Asthma Treatment
4	3 Nitro4 Methoxy Benzoic Acid	89-41-8	Intermediate	Used to manufacture API	--	AntiTumorAgent
5	2 Nitro3 Methoxy Benzoic Acid	40751-88-0	Intermediate	Used to manufacture API and Pigments	--	Used to manufacture API and Pigments
6	4 Nitro2 Methoxy Benzoic Acid	2597-56-0	Intermediate	Used to manufacture API and Pigments	---	Used to manufacture API and Pigments
7	5 Nitro2 Methoxy Benzoic Acid	40751-89-1	Intermediate	Batrixaban	330942-05-7	Anticoagulant and for treating Thrombosis
7	CHLORO TOLUENE DERIVATIVES					
1	Mono ChloroToluene	106-43-4/ 95-49-8/ 95-49-8	Intermediate	Mebendazole	31431-39-7	Anthelmintic or Anti Worm Medicine
2	Di Chloro Toluene	95-73-8/ 95-75-0/ 32768-54-0	Intermediate	Furosemide	54-31-9	Diuretic
3	Mix Di ChloroToluene	95-73-8/ 95-75-0/ 32768-54-0	Intermediate	Furosemide	54-31-9	Diuretic
8	BENZO NITRILE DERIVATIVES					
1	2 Chloro 5 Nitro Benzo Nitrile	16588-02-6	Intermediate	Mesalamine	89-57-6	To treat bowel disease

2	3 Nitro 4 Chloro Benzo Nitrile	939-80-0	Intermediate	Indapamide	26807-65-8	Diuretic
3	2, 3 Di Chloro Benzo Nitrile	6574-97-6	Intermediate	Ticlatone	70-10-0	Antifungal
4	3, 4 Di Chloro Benzo Nitrile	6574-99-8	Intermediate	Sertraline	79617-96-2	Anti Depressant
5	2, 4 Di Chloro Benzo Nitrile	6574-98-7	Intermediate	Glibenclamide	10238-21-8	ForDiabetestype II
6	Meta Nitro Benzo Nitrile	619-24-9	Intermediate	Ertapenem	153832-38-3	Antibiotic
7	Para Nitro Benzo Nitrile	619-72-7	Intermediate	Diminazineacetu rate	908-54-3	Antiprotozol Drug
8	Meta ChloroBenzo Nitrile	766-84-7	Intermediate	Brupropion	34841-39-9	For Treating Depressive Disorder&Quit Smoking
9	OrthoChloro BenzoNitrile	873-32-5	Intermediate	Tri-n-butyline Chloride	1461-22-9	For endocrine disruptions
10	Para Chloro Benzo Nitrile	623-03-0	Intermediate	Pyrimethamine	58-14-0	Antimalarial
11	2 Chloro 3 Nitro BenzoNitrile	34662-24-3	Intermediate	Glucocorticoid s & acibenzolar s methyl	135158-54-2	Antiinflammatory correct liver damage. Also used as fungicide
12	2 Chloro 4 Nitro Benzo Nitrile	28163-00-0	Intermediate	Rivanol	1837-57-6	Antiseptic
13	4 Chloro 2 Nitro Benzo Nitrile	34662-32-3	Intermediate	Veterinary Drug	--	Veterinary Drug
14	MetaBromo BenzoNitrile	6952-59-6	Intermediate	GSK 3 Inhibitor	667463-62-9	Central Nervous System agent
15	OrthoBromo BenzoNitrile	2042-37-7	Intermediate	Nitrolmmidazole amine	527-73-1	Veterniary Drug
16	Ortho Nitro Benzo Nitrile	612-24-8	Intermediate	Tolfenamic Acid	13710-19-5	For treatment of Migraine
17	Para Bromo Benzo Nitrile	623-00-7	Intermediate	Triazines	290-87-9	Pain Releiver
9	BENZAMIDE DERIVATIVES					
1	2 Chloro 3 Nitro Benzamide	117054-76-9	Intermediate	Glucocorticoid s & acibenzolar s methyl	135158-54-2	Antiinflammatorycorrect liver damage. Also used as fungicide

2	2 Chloro 4 Nitro Benzamide	3011-89-0	Intermediate	Aklomide	3011-89-0	Antiprotozol Antiparasitic&Pigments
3	2 Chloro 5 Nitro Benzamide	16588-15-1	Intermediate	Mesalamine	89-57-6	To treat bowel disease
4	2, 3 Di Chloro Benzamide	5980-24-5	Intermediate	Lamotrigine	84057-84-1	Anti Epileptic
5	2, 4 Di Chloro Benzamide	2447-79-2	Intermediate	Furosemide	54-31-9	Diuretic
6	3, 4 Di Chloro Benzamide	2670-38-4	Intermediate	Sertraline	79617-96-2	Anti Depressant
7	4Chloro2 Nitro Benzamide	41994-91-6	Intermediate	Veterinary Drug	--	Veterinary Drug
8	4 Chloro 3 Nitro Benzamide	16588-06-0	Intermediate	Indapamide	26807-65-8	Diuretic
9	Meta Bromo Benzamide	22726-00-7	Intermediate	GSK 3 Inhibitor	667463-62-9	Central Nervous System agent
10	Meta Chloro Benzamide	618-48-4	Intermediate	Brupropion	34841-39-9	For Treating Depressive Disorder & Quit Smoking
11	MetaNitro Benzamide	645-09-0	Intermediate	Veterinary Drug	--	--
12	Ortho Bromo Benzamide	4001-73-4	Intermediate	NitroImmidazole amine	527-73-1	Veterniary Drug
13	Ortho Chloro Benzamide	609-66-5	Intermediate	Trifluuron	64628-44-0	Bacteria Growth Regulator
14	Ortho Nitro Benzamide	610-15-1	Intermediate	Tolfenamic Acid	13710-19-5	For treatment of Migraine
15	Para Bromo Benzamide	698-67-9	Intermediate	DiminazineDiacet urate	908-54-3	Veterniary Drug
16	Para Chloro Benzamide	619-56-7	Intermediate	Pyrimethamine	58-14-0	Antimalarial
17	Para Nitro Benzamide	619-80-7	Intermediate	DiminazineDiacet urate	908-54-3	Veterniary Drug
10	2 Amino Benzoic Sulfonamide	137-65-5	Intermediate	Estradiol Sulfamate	172377-52-5	steroid sulfatase (STS) inhibitor for the treatment of endometriosis. Also used in Pigments
11	Thio Salicylic Acid	147-93-3	Intermediate	Thianaphene	95-15-8	Fungicide
12	Aceturic Acid	543-24-8	Intermediate	D -Thyroxin	51-49-0	Thyroid Treatment

13	Maleic Acid	110-16-7	Intermediate	Pyridoindolone	245-08-9	Anti-cancer	
<b>PROPOSED PRODUCTS</b>							
S r. N o	Name of the Product	CAS No. (Product)	Type/ Categor y of Produc t (API/ Intermedia te)	Stag e (n- 1, n- 2, n-3)	In case of Intermediate stage of API		SaidAPIused for/EndUseofsaidAPI
					NameofAPIinwhic h IntermediateUsed/ End use of said Intermediate	CAS No. (API)	
14	BPEA Sulfonamid e	31431- 39-7	Intermediat es	n-2	Glibenclamide Sulfonamide  or Glipizide Sulfonamide	16673- 34-00 or 33288- 71-0	Antidiabetic
15	Glibenclami de Sulfonamid e	16673 -34-00	API	n-1	--	--	Antidiabetic
16	Glipizide Sulfonamid e	33288 -71-0	API	n-1	--	--	Antidiabetic
17	PCBA Sulfonamide	1205- 30-7	Intermediat es	n-1	Indapamide Or Clopamide	26807- 65-8 Or 636-54-4	Anti HyperTensive& Diuretic
18	Indapamide	26807 -65-8	API	n	--	--	Anti HyperTensive& Diuretic
19	Clopamide	636- 54-4	API	n	--	--	Anti HyperTensive& Diuretic
20	Para Nitro Benzoic Acid	62-23- 7	Intermediate s	n-2	Benzocain	94-09-7	Pain Releiver& Vitamin B
21	Para Amino Benzoic Acid	150- 13-0	Intermediate s	n-1	Benzocain	94-09-7	Pain Releiver& Vitamin B
22	Benzocain	94-09- 7	API	n	--	--	Pain Releiver& Vitamin B
23	2 Chloro 5 Nitro Benzoic Acid	2516- 96-3	Intermediate s	n-2	Mesalamine	89-57-6	Bowel Disorder
24	5 Nitro Salicylic Acid	96-97- 9	Intermediate s	n-1	Mesalamine	89-57-6	Bowel Disorder

25	Mesalamine	89-57-6	API	n	--	--	Bowel Disorder
26	4 Chloro 3 Nitro Benzoic Acid	96-99-1	Intermediate	n-3	Mebendazole	31431-39-7	Anti-Worm
27	4 Chloro 3 Nitro Benzophenone	56107-02-9	Intermediate	n-2	Mebendazole	31431-39-7	Anti-Worm
28	3 4 Di Amino Benzophenone	39070-63-8	Intermediate	n-1	Mebendazole	31431-39-7	Anti-Worm
29	2,4 Di Chloro Benzoic Acid	50-80-7	Intermediate	n-2	Furosemide	54-31-9	Diuretic
30	Lasamide(2, 4 Di Chloro Benzoic Acid 5 Sulfonamide)	2736-23-4	Intermediates	n-1	Furosemide	54-31-9	Diuretic

- The project falls under Category B2 of project activity 5(f) as per the schedule of EIA Notification 2006 and amendment dated 27<sup>th</sup> March, 2020.
- PP submitted an undertaking ensuring proposed product profile is in line with MoEF&CC's Notification vide S.O. 1223 (E) dated 27/03/2020 in respect of Active Pharmaceutical Ingredients (API) as category B2 projects. Undertaking as proposal of said product are eligible to consider under B2 category as per the notification of MoEF&CC dated 27.03.2020
- The proposal was considered in the SEAC video conference meeting dated 19.05.2021.
- During the meeting dated 19.05.2021, the project was appraised based on the information furnished in Form – 1, Pre-Feasibility Report, Environment Management Plan and details submitted by e-mail.
- Project proponent (PP) and their Technical Expert from M/s Jyoti om Chemical Research Centre Pvt. Ltd remain present during video conference meeting.
- This is an existing unit involved in manufacturing of various benzoic acid derivatives for which EC is not applicable as unit was established before year 2006 and existing CCA valid up to dated: 15.10.2022. Self-Certified compliance report of existing CCA is submitted.
- Committee noted that "there is no litigation pending before any court of Law and no public complaints against the Project'. There is closure direction issued on dated: 14.08.2020 for which revocation was issued on 10.09.2020 for a period of three months.

- Now, unit has proposed for expansion for manufacturing of synthetic organic chemicals [API and API Intermediates] at GIDC Ankleshwar. Total plot area is 6144Sq. m.
- Committee deliberated on product profile with specific end-use of each proposed products. PP proposed for expansion of various benzoic acid derivatives considering it as API Intermediates which is not acceptable. Upon asking regarding detailed manufacturing process and its specific end-use of various benzoic acid derivatives, PP could not reply satisfactorily.
- Committee noted the following:
  - ✓ Site Plan/ layout with fire plan & floor plans and provision of separate entry & exits, 6 m & 8 m wide peripheral road, OHC, production areas, raw material & finished goods storage area, ETP area, utility area, solvent storage area, 20.17% greenbelt within premises, etc.
  - ✓ Natural gas is proposed as fuel in boilers and TFHs.
  - ✓ Two stage scrubbing system is proposed for control of process gas emission.
  - ✓ Scrubbing liquor will be treated in ETP.
  - ✓ PP submitted hazardous waste matrix mentioning source of generation, quantity and Mode of disposal and committed to comply the Hazardous and Other Wastes (Management and Transboundary Movement) Rules 2016.
  - ✓ Generated industrial effluent from existing project will be treated in primary ETP followed by settler and sent to CETP-ETIL.
  - ✓ Generated industrial effluent from proposed project will be treated in primary ETP and sent to CMEE-BEIL.
  - ✓ Domestic effluent will be treated in STP and reused for gardening/ plantation.
  - ✓ Fire load calculation mentioning fire water storage (Cap: 500 KL), 14 Nos of foam type extinguishers (Cap: 9 Litres) and 6 Nos of foam trolley (Cap: 45 Litres).
- Committee deliberated on Product profile, Layout plan, Storage details, Process safety, Fire safety, water balance & waste water management, Flue gas and process gas emission & Air Pollution Control System, Hazardous waste matrix, EMP, CER, Green belt, etc.
- Committee insisted to mention reuse of boiler condensate in water balance.
- **After detailed discussion, Committee unanimously decided to consider the proposal in the upcoming SEAC meeting only after satisfactory submission of the following:**
  1. Justification regarding various benzoic acid derivatives in line with MoEF&CC's Notification dated 27/03/2020. Also submit detailed manufacturing process of relative API and benzoic acid derivatives which is considered as API Intermediates. Also submit specific end-use of each benzoic acid derivatives in API manufacturing.
  2. Submit revised product profile and proposal with submission of revised PFR, Form-1, EMP and CER in line with MoEF&CC's Notification dated 27/03/2020 and subsequent change in Water, Air and Hazardous waste Management.
  3. Revised water balance mentioning reuse of boiler condensate.



- PP submitted reply of above query generated on SEAC VC meeting dated 19/05/2021 through e-mail.
- This proposal is reconsidered in SEAC meeting dated **05.08.2021**. PP along with their technical expert/consultant, M/s. Jyoti Om Chemical Research Centre Pvt. Ltd remains present in the meeting and made presentation before Committee.
- PP submitted revised product profile as above and revised salient features of water, air and Hazardous waste management are as under,

Sr. no.	Particulars	Details																										
<b>A-1</b>	<b>Total cost of Proposed Project</b> (Rs. in Crores): <table border="1" style="margin-left: 40px;"> <thead> <tr> <th>Existing</th> <th>Proposed</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>21.06Crores</td> <td>5.96Crores</td> <td>27.02Crores</td> </tr> </tbody> </table> Break-up of proposed project Cost: <table border="1" style="margin-left: 40px;"> <thead> <tr> <th>Details</th> <th>Existing (Rs. In Crores)</th> <th>Proposed (Rs. In Crores)</th> <th>Total (Rs. In Crores)</th> </tr> </thead> <tbody> <tr> <td>Land</td> <td>2.01</td> <td>0.00</td> <td>2.01</td> </tr> <tr> <td>Building</td> <td>4.29</td> <td>2.00</td> <td>6.29</td> </tr> <tr> <td>Machinery</td> <td>12.78</td> <td>2.60</td> <td>15.38</td> </tr> <tr> <td>Miscellaneous</td> <td>1.98</td> <td>1.36</td> <td>3.34</td> </tr> </tbody> </table>		Existing	Proposed	Total	21.06Crores	5.96Crores	27.02Crores	Details	Existing (Rs. In Crores)	Proposed (Rs. In Crores)	Total (Rs. In Crores)	Land	2.01	0.00	2.01	Building	4.29	2.00	6.29	Machinery	12.78	2.60	15.38	Miscellaneous	1.98	1.36	3.34
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<b>A-2</b>	<b>Details of Environmental Management Plan (EMP)</b>	As below:																										

Sr. No.	Pollution Control Measures	Equipment	Approximate Capital Cost (Rs. In Lac.)	Approximate Recurring Cost Per Annum (Rs. In Lac)
1	Air Pollution Control	Acid & Alkali Scrubber	30	10
2	Water Pollution Control	Primary ETP & send to CMEE	106	1300
3	Environment Monitoring and Management	Auditing	0	5
4	Solid Waste Management	HWSA, Membership Of TSDF and Co processing of Hazardous Waste & Disposal	15	100
5	Safety Equipment & First Aid Kit	Fire Extinguisher, Aid Kit, Smoke detector	100	10

6	DCS Automation System	Hydrogenation, Nitration, Chlorination & Distillation	35	10
7	OHC	Bed, First Aid Kit, Periodical medical Check-up of employees Etc.	5	1
8	Green development belt	Development Green belt area and its maintenance	2	0.5
9	CER	Surrounding 10 KM villages	5	1
<b>Total</b>			<b>2.98</b>	<b>14.735</b>

### Summary

Cost of Project in Crores per Annum:	27.02
EMP Capital Cost in Crores per Annum and Percentage:	2.98&11.02%
EMP Recurring Cost in Crores per Annum and Percentage:	14.735&54.5%

**A-3** Details of CER as per OM dated 01/05/2018 (In case of project falls under CPA/SPA, CER fund allocation to be at least 1.5 times the slabs given in the OM dated 01.05.2018 for SPA and 2 times for CPA in case of Environmental Clearance as per the mechanism published vide MoEF&CC's OM vide 31.10.2019.)

% as per the OM	Rs. in Crores
1%	0.06

#### BUDGETARY ALLOCATION FOR CER ACTIVITIES

The unit has planned to spend 1% of the total cost of the project over a period of five years towards CER activity. So, as per the project cost **Rs. 5 Lakhs** used in the CER activities. Budgetary allocation is given in below table.

Sr. No.	Activity	(Capital Cost) Y1	Recurring Cost for 4 Years
1	Provide Rain Water Harvesting facility in primary school at Uchchali village	5	0.25 X 4 = 1 Lacs
		5	1 Lacs

**B** Land / Plot ownership details:

**B-1** Plot area

Existing	Proposed	Total
----------	----------	-------

		6144 Sq. m.	0 Sq. m.	6144 Sq. m.												
<b>B-2</b>	<p>Brief note on <b>Area adequacy</b> in line to proposed project activities:</p> <p>Brief note on proposed activities:</p> <ul style="list-style-type: none"> <li>➤ Total plot area of the unit is 6144 Sq.mt.</li> <li>➤ Existing production building is having G+2 Facility &amp; after proposed expansion unit will develop G+4 Facility.</li> <li>➤ Plant 1 is having 328.35 Sq meter and Plant 2 is having 499.87 Sq.mt.</li> <li>➤ The unit is having total 2 Nos. of manufacturing facilities.</li> <li>➤ Proposed ETP area is 150 Sq.meter.</li> <li>➤ Total utility area is 158.60 Sq.meter.</li> <li>➤ We may further inform you that to store raw material , the unit is having also one facility located at Plot No. 307 + 308 to 311/10 in Ankleshwar. The unit will also use this facility to store the raw materials.</li> <li>➤ In this premises, the unit will develop 55.00 sq meter solvent storage facility.</li> <li>➤ The unit is having 150 Sq.meter area for finished good storage. In F.G.Area - 2 , the unit will store API products.</li> <li>➤ The raw material storage area is 65.00 Sq.meter.</li> </ul>															
<b>B-3</b>	<p><b>Green belt area</b></p> <table border="1"> <thead> <tr> <th></th> <th>Existing (Sq. meter)</th> <th>Proposed (Sq. meter)</th> <th>Total (Sq. meter)</th> </tr> </thead> <tbody> <tr> <td>Area in Sq. meter</td> <td>1239.23</td> <td>2500</td> <td>3739.23</td> </tr> <tr> <td>% of total area</td> <td>20.17</td> <td>40.69</td> <td>60.86</td> </tr> </tbody> </table>					Existing (Sq. meter)	Proposed (Sq. meter)	Total (Sq. meter)	Area in Sq. meter	1239.23	2500	3739.23	% of total area	20.17	40.69	60.86
	Existing (Sq. meter)	Proposed (Sq. meter)	Total (Sq. meter)													
Area in Sq. meter	1239.23	2500	3739.23													
% of total area	20.17	40.69	60.86													
<b>C</b>	<p><b>Employment generation</b></p> <table border="1"> <thead> <tr> <th></th> <th>Existing</th> <th>Proposed</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td></td> <td>98</td> <td>62</td> <td>160</td> </tr> </tbody> </table>					Existing	Proposed	Total		98	62	160				
	Existing	Proposed	Total													
	98	62	160													
<b>D</b>	<b>WATER</b>															
<b>D-1</b>	<p><b>Source of Water Supply</b> (GIDC, Bore well, Surface water, Tanker supply etc...) GIDC</p> <p>Status of permission from the concern authority.</p> <ul style="list-style-type: none"> <li>➤ Unit will apply.</li> </ul>															
<b>D-2</b>	<b>Water consumption (KLD)</b>															

Sr. No.	Particulars	Existing Quantity as per CCA Quantity – A- 93828 KLD	Existing Increase /Decrease KLD	Proposed Increase / Decrease KLD	Total after Expansion KLD	Remarks
1.	<b>Domestic</b>	5.05	0	4.95	10	Unit will use 10 KLD Fresh Water for domestic purpose.
2.	<b>Gardening</b>	0	0	5	5	Recycle
3.	<b>Industrial</b>					
	Process	67.3	-0.30	57	124	Fresh
	washing	5	0	5	10	Recycle
	Boiler	12	0	12	24	Fresh
	Cooling	10	0	10	20	Fresh
	Scrubbing	--	0	3	3	Fresh
	<b>Industrial Total</b>	<b>94.3</b>	<b>-0.30</b>	<b>87</b>	<b>181</b>	<b>171 Fresh + 10 Recycle</b>
	<b>Grand Total (1+2+3)</b>	<b>99.35</b>	<b>-0.30</b>	<b>96.95</b>	<b>196</b>	<b>181 Fresh + 15 Recycle</b>

**D-3 Waste water generation (KLD)**

Sr. No.	Particulars	Existing Quantity as per CCA Quantity – A - 93828 KLD	Existing Waste Water Generation KLD Increase/ Decrease	Proposed Waste water Generation KLD Increase/ Decrease	Total Waste Water Generation after expansion KLD	Remarks
1.	<b>Domestic</b>	5	0.0	5	10	5 KLD Reuse in gardening + 5 KLD Send to ETP
2.	<b>Industrial</b>					
	Process	65.8	-0.50	62.7	128	65.3 KLD Send to ETP + 62.7 KLD Subjected to CMEE
	Washing	5	0.0	5	10	Subjected to CMEE

	Boiler	6	0.0	6	12	Subjected to ETP
	Cooling	5	0.0	5	10	Reuse in washing.
	Scrubber	0	0.0	4.5	4.5	Subjected to ETP
	<b>Total Industrial</b>	<b>81.8</b>	<b>-0.50</b>	<b>83.6</b>	<b>164.9</b>	--
	<b>TOTAL (Domestic + Industrial)</b>	<b>86.8</b>	<b>-0.50</b>	<b>88.6</b>	<b>174.9</b>	--

**Brief Note on worst case scenario for waste water generation(Qualitative and Quantitative):**

Sr. No.	Name of Product	Production Capacity /Month	MT/MT	MT/M	MT/Day
1.	Glibenclamide Sulfonamide	10	12	120	4
2.	Indapamide or Clopamide	15	7.0	105	3.50
3.	Benzocaine	100	5.2	520	17.33
4.	Meselamine	50	12.45	624.78	20.82
5.	3 Nitro 4 chlorobenzophenone	100	2.3232	232.32	7.7440
6.	2,4 di chloro benzoic acid	100	2.8	280.0	9.3
<b>TOTAL</b>			<b>40.77</b>	<b>1882.1</b>	<b>62.7</b>

**Brief justification in case of no process effluent generation or no industrial effluent generation or no high concentration effluent generation from proposed project (Whichever is applicable).**

➤ Not Applicable

**D-4** Mode of Disposal & Final meeting point (**Existing and Proposed**)

**Existing and Proposed**

Domestic:	Send to the STP& ETP
Industrial:	Existing load effluent send to the M/s. ETL & Proposed effluent load send to the CMEE

Clearly mention about final disposal

CETP of M/s. ETL & CMEE of M/s. BEIL

**D-5** Treatment facilities

**For Domestic waste water:**

Capacity of STP: 5 KLD

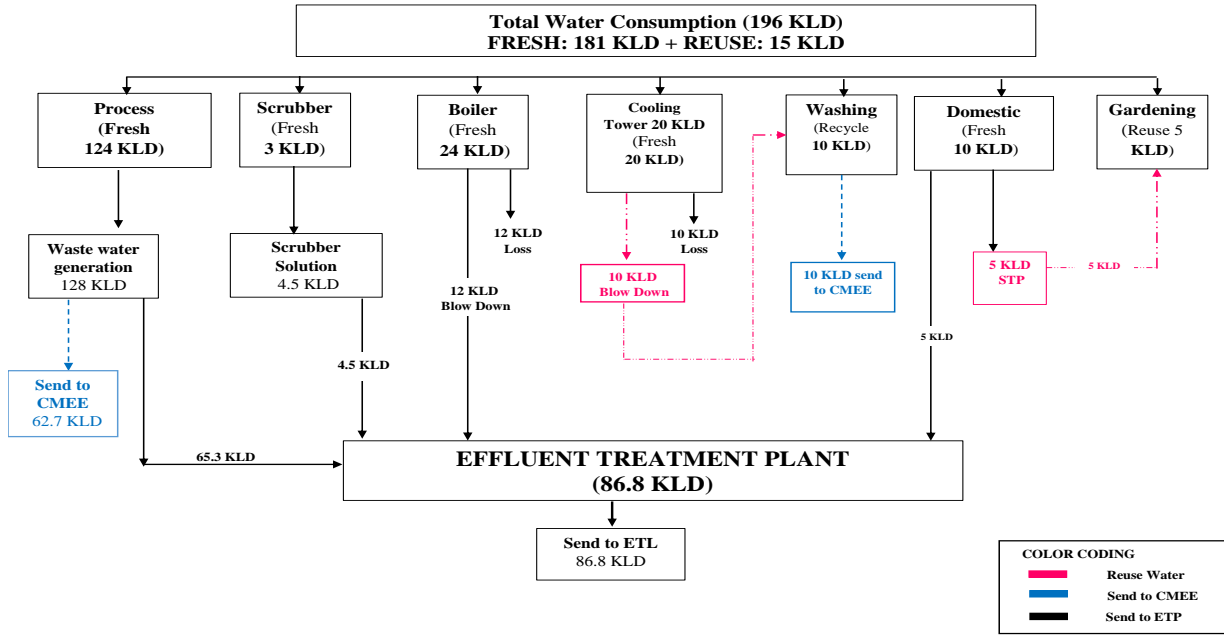
**For Industrial waste water:** Treatment facility within premises with **capacity**

[In-house ETP (Primary, Secondary, Tertiary), MEE, Stripper, Spray Dryer, STP etc.

Treatment scheme including segregation at source. (**Give Characteristics of each stream i.e.**

**COD, BOD, TDS etc.) In case of stream segregation, Separate ETP (ETP-1, ETP-2....) for**

<p><b>each stream shall be proposed.</b></p> <ul style="list-style-type: none"> <li>➤ Primary Treatment</li> <li>Existing ETP – 90 KLD</li> <li>Proposed ETP – 70 KLD</li> </ul>	
<p><u>Note: (In case of CETP discharge) :</u></p> <p><b>Management of waste water keeping in view direction under section 18 (1) (b) of the Water (Prevention and Control of Pollution) act, 1974 issued by CPCB regarding compliance of CETP.</b></p> <ul style="list-style-type: none"> <li>➤ Existing Load of effluent 86.8 KLD ( 65.3 KLD from existing manufacturing process + 4.5 KLD from scrubber + 12 KLD Boiler Blow down + 5 KLD from Domestic) will be treated in ETP consist of primary treatment &amp; it will be send to CETP of M/s. ETL through tanker.</li> <li>➤ Additional load of effluent 72.7 KLD (62.7 KLD from Proposed manufacturing process + 10 KLD washing) will be send to Common MEE.</li> <li>➤ Unit will reuse 20 KLD waste water (10 KLD cooling tower blow down reuse in washing &amp; 10 KLD from STP reuse 5 KLD in Gardening + 5 KLD cooling tower).</li> <li>➤ Existing effluent stream will be send to the M/s. ETL and proposed effluent stream will be send to the CMEE. Thus, 18 (1)(b) is not applicable to us.</li> </ul>	
<p><u>Brief note on adequacy of ZLD (In case of Zero Liquid Discharge):</u></p> <ul style="list-style-type: none"> <li>➤ Additional load of effluent 72.7 KLD (62.7 KLD from Proposed manufacturing process + 10 KLD washing) will be send to Common MEE.</li> </ul>	
<b>D-6</b>	<p>In case of Common facility (CF) i.e. <b>CETP, Common Spray dryer, Common MEE, CHWIF etc.</b></p> <p><b>Name of Common facility (CF) (For waste water treatment)</b></p>
	<ul style="list-style-type: none"> <li>➤ CMEE of M/s. BEIL, Ankleshwar</li> </ul>
	<p>Membership of Common facility (CF) mentioning <b>total capacity, consented quantity, occupied capacity and spare capacity</b> and norms of acceptance of effluent from member units in-line with the direction given by GPCB vide Letter No. GPCB/P-1/8-G (5)/550706 dated 08/01/2020.</p>
	<ul style="list-style-type: none"> <li>➤ <b>Unit will obtained.</b></li> </ul>
<b>D-7</b>	<p><b>Simplified water balance diagram with reuse / recycle of waste water (Existing and Proposed)</b></p>



\* Total Boiler Water consumption – 144 KLD (Fresh – 24 KLD & Condensate boiler steam - 120 KLD)  
 \* Total Cooling Tower Water consumption – 500 KLD from which Fresh - 20 KLD & Cooling tower Recirculate water – 480 KLD

<b>E</b>	<b>AIR</b>		
<b>E-1</b>	<b>Brief Note on fuel based Heat energy requirement and worst case scenario thereof:</b>		
	<b>Sr. No.</b>	<b>Fuel</b>	<b>Calorific Value</b>
	1.	Natural Gas	12500
<b>E-2</b>	<b>Flue gas emission details</b>		
	No. of Boilers/TFH/Furnaces/DG sets etc. with capacities viz. TPH, Kcal/hr, MT/hr, KVA etc.		
	(In case of Project located within CPA/SPA , APCM shall be in line to the mechanism published in the MOEFCC's OM vide dated 31.10.2019)		

**Existing & Proposed**

Sr. no.	Source of emission With Capacity	Stack Height (meter)	Type of Fuel	Quantity of Fuel MT/Day	Type of emissions i.e. Air Pollutants	Air Pollution Control Measures (APCM)
<b>AS PER Existing CCA No:-A - 93828</b>						
1	Boiler (3 TPH)	12	Natural Gas	1990 Nm3/Day	PM SO <sub>2</sub> NO <sub>x</sub>	120 mg/Nm <sup>3</sup> 80 ppm 40 ppm
2	Thermic Fluid Heater (2 Lac/Kcal)	12	Natural Gas	657 Nm3/Day	PM SO <sub>2</sub> NO <sub>x</sub>	120 mg/Nm <sup>3</sup> 80 ppm 40 ppm
3	D.G.Set (750 KVA)	12	Diesel	84 lit/Hr.	PM SO <sub>2</sub> NO <sub>x</sub>	120 mg/Nm <sup>3</sup> 80 ppm 40 ppm
<b>As per proposed expansion</b>						
4.	Boiler (3 TPH)	22	Natural Gas	1990 Nm3/Day	PM SO <sub>2</sub> NO <sub>x</sub>	120 mg/Nm <sup>3</sup> 80 ppm 40 ppm
5.	Thermic Fluid Heater (2 Lac/Kcal)		Natural Gas	657 Nm3/Day	PM SO <sub>2</sub> NO <sub>x</sub>	120 mg/Nm <sup>3</sup> 80 ppm 40 ppm
6.	D.G.Set (750 KVA)	12	Diesel	84 lit/Hr.	PM SO <sub>2</sub> NO <sub>x</sub>	120 mg/Nm <sup>3</sup> 80 ppm 40 ppm

**E-3** Process gas i.e. Type of pollutant gases (SO<sub>2</sub>, HCl, NH<sub>3</sub>, Cl<sub>2</sub>, NO<sub>x</sub> etc.)

**Existing & Proposed**

Sr. no.	Specific Source of emission (Name of the Product & Process)	Type of emissions i.e. Air Pollutants (SO <sub>2</sub> , HCl, Cl etc.)	Stack/Vent Height (meter)	Air Pollution Control Measures (APCM)
1	Reaction vessels	SO <sub>2</sub> HCl NO <sub>x</sub>	25	Alkali Scrubber



2	Reaction vessels	SO <sub>2</sub> HCl NO <sub>x</sub>	25	Alkali scrubber + Water Scrubber
3	Reaction vessels	NH <sub>3</sub>	25	Acid Scrubber
<b>Total after proposed expansion</b>				
1	Reaction vessels	NO <sub>x</sub>	25	Water Scrubber + Alkali scrubber
2	Reaction vessels	SO <sub>2</sub> HCl	25	Water Scrubber + Alkali Scrubber
3	Reaction vessels	NH <sub>3</sub>	25	Water Scrubber + Acid Scrubber

**Note:**

- Details of gaseous raw materials used in proposed project
- Estimation of process gas emission (Product wise and Total)
- Requirement of the scrubbing media (KL per Day) considering solubility (Product wise and Total)
- Yearly generation of all bleed liquors (MT/KL per Annum) as mentioned above and its sound management in HW matrix.

**E-4** Fugitive emission details with its mitigation measures.

Sr. No.	Source	Probable Pollutant Emission	Control Measures/ APCM
<b>FUGITIVE EMISSION</b>			
1	Raw material storage tank	Air pollutant (VOC)	i) Carry out work place area monitoring to find out concentration level in ambient air. ii) Provision of breather valve cum flame arrester.
2	Raw Material recovery system	Air pollutant (VOC)	ii) Pumps & motors are mechanical seal type.
3	Handling of raw material bags in storage area	Air pollutant (PM)	i) Provision of exhaust ventilation ii) Provision of PPE. iii) Provision of Job rotation to reduce exposure.
4	Flange joints of pipeline, pump & motors	Air pollutant (VOC)	i) Routine & periodic inspection to check leakage. ii) Preventive maintenance, Follow SOP for maintenance. iii) Pumps & motors will be mechanical seal type. iv) LDAR program will be

							followed. Provision of Flange guard.
	5	Solid raw material transferring to reactor	Air pollutant (PM)				Hopper will be provided with powder transfer system.
	6	Liquid raw material transferring to reactor	Air pollutant (VOC)				Feeding of liquid raw material will be carried out by closed pipeline and mechanical seal pump.
	7	Loading /unloading at storage area	Air pollutant (VOC)				Unloading through pipeline to tank in a close system.
<b>F</b>	<b>Hazardous waste</b> (As per the Hazardous and Other Wastes (Management and Transboundary Movement) Rules 2016. Note: <ul style="list-style-type: none"> <li>➤ <b>Priorities for HW Management:</b> Pre-processing, Co-Processing, Reuse/Recycle within premises, Sell out to actual users having Rule-9 permission, TSDF/CHWIH.</li> <li>➤ <b>Quantification of hazardous waste shall be based on mass balance and calculations shall be incorporated in EMP details separately.</b></li> <li>➤ <b>Disposal to scrap vendors/vendors/traders is not allowed</b></li> </ul>						
<b>F-1</b>	<b>Hazardous waste management matrix</b>						
<b>Existing &amp; Proposed</b>							
Sr. no.	Type/Name of Hazardous waste	Specific Source of generation (Name of the Activity, Product etc.)	Category and Schedule as per HW Rules.	Quantity (MT/Annun)			Disposal Method
				Existing Increase /Decrease	Proposed Increase /Decrease	Total	
1.	Empty barrels/containers/liners contaminated with hazardous chemicals /wastes	From Packing Material	33.1	19.2	281.8	300	Collection, Storage, decontamination, Disposal by send it to authorized decontamination facility / recycler or reuse or send back to supplier
2.	Chemical Sludge from waste water	From Effluent treatment plant	35.3	195	1505	1700	Collection, storage within factory premises, transportation

	treatment						and Disposal at TSDf
3.	Used or Spent oil	From Lubrication	5.1	0.0051	2.99	3.00	Collection, storage, transportation & Reuse in plant & machinery as lubricant or sell it to authorized re-refiners / Recycler
4	Process Residue & waste	From Production process	28.1	5	325	330	Collection, Storage, Transportation & send to the Co-processing / Incineration
5	Spent Catalyst	From Production process	28.2	2.4	168	170.4	Collection, Storage, and send to authorized units for regeneration who are having rule-9 permission
6	Spent Carbon	From Production process	28.2	24	176	200	Collection, Storage, Transportation & Send for Co-Processing/Common Incineration.
7	Sodium Nitrate Solution	From oxidation (Benzoic Acid Derivatives) + (Nitro Benzoic Acid derivatives) + (Sulfomoyl Benzoyl acid derivatives) & Scrubbing media	26.1	1800	5200	7000	Collection, Storage, and send to authorized units who are having rule-9 permission. If rule 9 is not available than it will be send to the ETP.
8	Dilute Ammonium Sulphate Solution	Process ([from chlorosulfonation (Sulfomoyl Benzoyl acid Derivatives) + (2 amino benzoic acid derivatives)	26.1	9600	15600	25200	

		(Scrubbing Media)]					
9	Spent Sulfuric Acid	Sulfomoyl Benzoyl acid Derivatives) + (2 amino benzoic acid derivatives)]	26.3	10800	16875	27675	
10	Dilute HCl solution	Sulfomoyl Benzoyl acid Derivatives) + (2 amino benzoic acid derivatives)] (Scrubbing Media)	26.3	960	1590	2550	
11	Dilute Nitric Acid	From Nitration (nitro benzoic acid derivatives)	26.3	2400	8550	10950	Collection, Storage, and send to authorized units who are having rule-9 permission. If rule 9 is not available than it will be send to the ETP or Reuse within premises.
12	Date expired Product	From premises	28.4	0	10	10	Collection, storage, transportation, co-processing in cement plants.
13	Off-specification Product	Production process	28.5	0	10	10	Collection, storage, transportation, co-processing in cement plants.
<b>F-2</b>	Membership details of <b>TSDF, CHWIF</b> etc. <b>(For HW management)</b>						
Details of Membership letter no. & Date with spare capacity of the Common Facility. ➤ Unit will obtained.							
<b>F-3</b>	Details of Non-Hazardous waste & its disposal					--	

		<b>(MSW and others)</b>				
	<b>Sr. no.</b>	<b>Type/Name of Other wastes</b>	<b>Specific Source of generation (Name of the Activity, Product etc.)</b>	<b>Quantity (MT/Annum)</b>	<b>Management of Wastes</b>	
	1	Glass Waste	Glass Material	1 MT/Annum	To TSDF	
	2	Paper Waste	Stationary	2 MT/Annum	At notified area facility	
<b>G</b>	<b>Solvent management</b> , VOC emissions etc.					
<b>G-1</b>	Brief Note on types of solvents, Details of Solvent recovery, % recovery, reuse of recovered Solvents etc.					
<b>Sr. No.</b>	<b>Name of solvent used</b>	<b>Solvent Quantity (MT/Month)</b>	<b>Fresh Solvent quantity (MT/Month)</b>	<b>Recovered Solvent quantity (MT/Month)</b>	<b>Percentage Recovery %</b>	
1.	Ethanol	360	349	11	97	
<b>G-2</b>	<b>Brief Note on LDAR proposed:</b>					
<ul style="list-style-type: none"> <li>➤ To prevent losses of these solvents in atmosphere, following infrastructure shall be used in addition to LDAR program</li> <li>➤ Company will be installed double mechanical seal and MSW Gaskets in solvent pipelines to prevent leakage from flanges</li> <li>➤ All the rotating equipment like pumps will be installed with double Mechanical Seals to arrest any sort of emissions.</li> <li>➤ Flanges will be sealed so less losses will be there.</li> <li>➤ Closed loop system.</li> <li>➤ Immediate Repair of devices in case of Leakages</li> <li>➤ A regular preventive maintenance schedule will be in place to replace or rectify all gaskets and joints etc to ensure no fugitive emissions shall take place.</li> <li>➤ Plant shall also maintain adequate number of spares and consumables required to repair the leaking device</li> <li>➤ Plant shall also have competent contractor team to handle Leakages and can repair the same immediately</li> <li>➤ Standby equipment like Pumps, valves etc. shall be kept basis the criticality and usage</li> <li>➤ Plant shall also have access equipment like Boom lift to handle leakages at height immediately</li> </ul>						

- Monitoring of Solvent Losses
- In warding, storage and consumption of solvents in various products shall be measured through Level Transmitters and Load cells weighing systems resp. The quantity at each stage shall be reconciled periodically to arrive at Losses
- Periodic monitoring of work area will be carried out to check the fugitive emission.

**G-3**      **VOC emission** sources and its mitigation measures

- Unit will provide proper solvent recovery system with scrubber and carbon to stop air emission.
- Due to Manufacturing process and solvent handling chances of VOC emissions. Entire process and material charging has been carried out in closed loop. Regular work place monitoring will be done. SOP will be followed to handle powder and liquid raw materials

**H**      **SAFETY details**

**H-1**      **Details regarding storage of Hazardous chemicals**  
**(For tank storages only including spent acid and spent solvent tanks)**

Sr. no.	Name of Chemical	Capacity of Tank	Number of Tanks	Hazardous Characteristics of Chemical
1	60 % Nitric Acid	14 KL 10 KL	1 1	Acidic, Corrosive
2	98 % Nitric Acid	14 KL	1	Acidic, Corrosive
3	Caustic soda Lye	12 KL	1	Corrosive
4	Sulfuric Acid	12 KL	1	Acidic, Corrosive
5	Chloro Sulfonic Acid	13 KL	2	Acidic, Corrosive
6	Liquor Ammonia	12 KL	1	Toxic
7	Dilute Sulfuric acid	15 KL 10 KL 7.5 KL	1 1 3	Acidic, Corrosive Hazardous waste
8	Hydrochloric Acid	15 KL	1	Acidic, Corrosive Hazardous waste
9	Ammonium sulfate Solution	20 KL 60 KL	1 1	Hazardous waste
10	Dilute Nitric acid	7.5 KL	2	Acidic, Corrosive Hazardous waste
11	Sodium Nitrite Solution	10 KL 7.5 KL	1 1	Hazardous waste

**Brief note on storage of Hazardous chemicals in Tanks**

**Brief note on storage of Hazardous chemicals other than Tanks i.e. Drum, Barrels,**

**Carboys, Bags etc.**

- MOC of drum will be as per compatibility of chemical and drum materials. Unit will provide flame proof electrical fitting as and firefighting measures to eliminate fire as well as other hazard. Spillage kit will be available at require area.

**Safety details of Hazardous Chemicals:**

Type of Hazardous Chemicals	Safety measures
Flammable	Storage in compatible storage unit with flame proof fitting, also provide firefighting measures. Only trained person allowed to handle
Corrosive	Storage in compatible storage unit with safe distance with other chemicals, Only trained person allowed to handle
Toxic	Storage in compatible storage unit with safe distance with other chemicals, Only trained person allowed to handle

- **Applicability of PESO :**

H-2 **Types of hazardous Processes involved and its safety measures:  
(Hydrogenation process, Nitration process, Chlorination process, Exothermic Reaction etc.)**

-

Type of Process	Safety measures including Automation
Hydrogenation	FLP type area will be provided. Total enclosed process system. Instrument & Plant Air System. Nitrogen blanketing in Hydrogenation reactor. Safety valve and Rupture disc provided on reactor. Cooling Chilling and power alternative arrangement have been made on reactor. Hydrogen and Nitrogen Cylinder bank away from the autoclave reactor. PRV station with shut off valve, safety valve provision will be made for hydrogenation reaction safety. Before Hydrogen Gas charging in to reactor and after completion of reaction Nitrogen Blanketing will be done. Flame arrestor will be provided on vent line of reactor and it will be extended up to roof level. Open well ventilated and fragile roofs will be provided to on reactor. Safe Catalyst charging method will be adopted. SOP will be prepared and operators will be trained for the same. Static earthing and electric earthing (Double) provided. Reactor vent extended outside the process area and flame arrestor provided on vent line.

	Dumping vessel arrangement will be made. Dumpers for static earthing on pipeline flanges of flammable chemical will be provided.		
<b>Chlorination</b>	Chlorine handling area is kept well ventilated. Chlorine Emergency Kit is procured and kept ready at chlorine shed. Chlorine Hood with blower is provided with scrubbing arrangement. SCBA sets are kept ready at chlorine handling area. Safety Shower and eye wash is provided in Chlorine shed area. Chlorine absorption system is provided. In case of chlorine leakage in chlorine shed, it will be suck through blower and it will be scrubbed in Caustic scrubber. Emergency siren and wind sock is provided. Tele Communication system and mobile phones are used in case of emergency situations for communication. First Aid Boxes and Occupational health centre is made at site. Full body protection suite and other PPEs are kept ready in ECC at site. Emergency team is prepared and trained for scenario base emergency. Like Toxic control team, Fire control team, First aid team, Communication and general administration team, Medical team etc.		
<b>Nitration</b>	Nitration will be done in closed S.S vessels. Nitric acid will be used for nitration process. Nitric acid is an extremely corrosive acid capable of causing severe chemical burns very rapidly. Because of the hazards posed by nitric acid, it is important to take safety measures whenever handling it. In our nitration process, exothermic reaction will be controlled by adequate dosing of reaction chemicals in a fixed time (not short duration) having adequate cooling water circulation in jacket of reaction vessels. Thus, any energy generated due to exothermic reaction will be controlled by external cooling circulation and therefore vessels will not be pressurized. The nitration reaction will be controlled by systematic cooling design to withdraw the energy evolved. Adequate pressure relief valve will be provided for each vessels having pressure release capacity will be kept below -3 kg/cm <sup>2</sup> than that of reaction vessels.		
<b>H-3</b>	<b>Details of Fire Load Calculation</b>		
	Total Plot Area:	6144	
	Area utilized for plant activity:	868.64	
	Area utilized for Hazardous Chemicals Storage:	360.88	
	Number of Floors:	G+4	
	Water requirement for firefighting in KLD :	--	
	Water storage tank provided for firefighting in KLD:	300 KL Existing + 200 KL Proposed	
	Details of Hydrant Pumps:	--	
	Nearest Fire Station :	3.6 KM	
	Applicability of Off Site Emergency Plan:	Diazem – 1 mg/kg (Intravenous), Epenephi a, Efidrine, Folinic acid	



			(Leucovorin), Methylene Blue, 0.4% Benzocaine (Novocaine) solution for eye, Dexona, Avil
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**SH-4**      **Details of Fire NOC/Certificate:**

Unit will obtained.

**H-5**      **Details of Occupational Health Centre (OHC):**

-	
Number of permanent Employee :	160
Number of Contractual person/Labour :	20
Area provided for OHC:	15
Number of First Aid Boxes :	5
Nearest General Hospital :	3.9 KM JayabenModi Hospital
Name of Antidotes to be store in plant :	Diazem – 1 mg/kg (Intravenous),Epenep hia, Efidrine, Folinicacid (Leucovorin), Methylene Blue, 0.4% Benzocaine (Novocaine) solution for eye, Dexona, Avil

- During meeting, PP presented revised product profile with removing para chloro benzoic acid & Ortho Chloro Benzoic acid from it. Also PP submitted revised the product profile, Raw material List and Manufacturing process. Water, Air and Hazardous waste details are remain same as per previous report. Committee noted that PP presented revised water balance diagram with mentioning reuse of boiler condensate.
- Committee found reply submitted by PP along with supporting documents was satisfactory.
- **After detailed discussion, Committee unanimously decided to recommend the project to SEIAA, Gujarat for grant of Environment Clearance with the following specific condition:**

**SPECIFIC CONDITIONS:**

1. Project Proponent (PP) shall strictly abide by the outcome/decision of Hon'ble Supreme Court of India in Civil

Appeal no. 8478/2020 regarding operation of the Hon'ble NGT orders dated 10/07/2019 & 14/11/2019.

2. PP shall comply conditions of any subsequent amendment or expansion or change in product mix, after the 30th September 2020, considered as per the provisions in force at that time as mentioned in the Notification vide S.O. 1223 (E) dated 27/03/2020.
3. PP shall carry out proposed project/activities in respect of Active Pharmaceutical Ingredients (API) as per the amended EIA Notification vide S.O. 1223 (E) dated 27/03/2020 and any subsequent amendments.
4. PP shall submit six monthly compliance report of Environmental Clearance without fail and the same shall be critically assessed by the regulatory authority.
5. Total number of products manufacturing shall not exceeding three (3) at a given point of time as per the plant capacity shown in plant layout.
6. R & D products shall be of similar chemistry in line with the EIA Notification vide S.O. 1223 (E) dated 27/03/2020 and the pollution load shall remain the same as committed. (b) Project proponent shall not take continuous/commercial production of the R & D materials. Necessary approvals shall be obtained from the concern authorities prior to commercial production of R & D materials. (c) Unit shall submit relevant details of R & D products like raw materials, its safety measures to the regulatory authority well before R & D activity. (d) Unit shall submit relevant details of R & D products like different wastes generated (Quantity & Quality) and its management to the regulatory authority within a month of R & D activity.
7. Unit shall install CEMS[**Continuous Emission Monitoring System**] in line to CPCB directions to all SPCB vide letter no. B-29016/04/06PCI-1/5401 dated 05/02/2014 for effluent discharge and air emission as per pollutants discharge/emission from respective project and an arrangement shall also be done for reflecting the online monitoring results on the company's server, which can be assessable by the GPCB/CPCB on real time basis. **[For Small/Large/Medium (Red Category) & Whichever (Air emission & Effluent discharge) is applicable]**.
8. Close loop solvent recovery system with adequate condenser system shall be provided to recover solvent vapours in such a manner that recovery shall be maximum and recovered solvent shall be reused in the process within premises.
9. Leak Detection and Repair (LDAR) program shall be prepared and implemented as per the CPCB guidelines. LDAR Logbooks shall be maintained.
10. All measure shall be taken to avoid soil and ground water contamination within premises.
11. GPCB shall ensure compliance of direction under section 18 (1) (b) of the Water (Prevention and Control of Pollution) act, 1974 issued by CPCB regarding compliance of CETP and also that the pollution load is not increased in the CPA/SPA for the compliance of Hon'ble NGT order.

## **WATER**

12. Total water requirement for the project shall not exceed 196 KLD. Unit shall reuse 25 KLD of treated industrial effluent within premises. Hence, fresh water requirement shall not exceed 171 KLD and it shall be met through GIDC water supply only. Prior permission from concerned authority shall be obtained for withdrawal of water.

13. The industrial effluent generation from the project shall not exceed 164.90 KLD after expansion.
14. Industrial effluent shall be segregated into two streams (1) High COD and TDS effluent (2) Low COD and TDS effluent and it shall be managed as below.
- **High COD and TDS effluent (72.70 KLD)**
    - 72.70 KLD, High COD and TDS effluent from process and washing shall be treated in ETP-1 and then treated effluent shall be sent to CMEE of M/s BEIL through GPS fitted tanker for evaporation.
  - **Low COD and TDS effluent (81.80 + 10 KLD):**
    - 81.80 KLD, Low COD effluent from process, utilities, & scrubber shall be treated in ETP-2 consists of primary units. Then treated effluent shall be sent to CETP of M/s ETL, Ankleshwar for further treatment & disposal.
    - 10 KLD industrial effluent generated from cooling blow down shall be directly reused back for washing purpose within premises.
15. Project proponent (PP) shall adopt appropriate methods for segregation of waste water streams based on characteristics at source and its sound management keeping in view direction under section 18 (1) (b) of the Water (Prevention and Control of Pollution) act, 1974 issued by CPCB regarding compliance of CETP.
16. Treated waste water shall be sent to CETP of M/s. ETL, Ankleshwar only after complying with the inlet norms of common facilities prescribed by GPCB to ensure no adverse impact on Human Health and Environment.
17. Unit shall sent wastewater to CMEE only after ensuring content of effluent for COD/VOC so as not to get air borne during evaporation in order to achieve no adverse impacts on Environment and Human Health.
18. Domestic wastewater generation shall not exceed 5 KL/day for proposed project and it shall be treated in ETP. It shall not be disposed off through soak pit/ septic tank.
19. Unit shall provide buffer water storage tank of adequate capacity for storage of treated waste water during ant shut down of CMEE.

### **AIR**

20. Unit shall not exceed fuel consumption and provide APCM and Stack height as mentioned in flue gas matrix.
21. Unit shall provide APCM and stack height as mentioned in process gas matrix.

### **HAZARDOUS & SOLID WASTE**

22. All hazardous solid waste shall be managed as mentioned in hazardous waste matrix.
23. The unit shall submit the list of authorized end users of hazardous wastes along with MoU signed with them at least two months in advance prior to the commencement of production. In the absence of potential buyers of these items, the unit shall restrict the production of the respective items.

### **GREENBELT AREA**

24. The PP shall develop green belt within premises (3739 Sq. m i.e. > 33 % of the total plot area) as per the undertaking submitted before SEAC. Green belt shall be developed with native plant species that are significant and used for the pollution abatement as per the CPCB guidelines. It shall be implemented within 3 years of operation phase in consultation with GPCB.

**25. Safety & Health:**

- a) Unit shall obtain all required permissions from the Narcotics Control Bureau for storage and handling of Acetic Anhydride & any such chemicals.
- b) PP shall obtain PESO permission for the storage and handling of hazardous chemicals.
- c) PP shall provide Occupational Health Centre (OHC) as per the provisions under the Gujarat Factories Rule 68-U.
- d) PP shall obtain fire safety certificate / Fire No-Objection certificate (NOC) from the concern authority as per the prevailing Rules / Gujarat Fire Prevention and Life Safety Measures Act, 2016.
- e) Unit shall adopt functional operations/process automation system including emergency response to eliminate risk associated with the hazardous processes.
- f) PP shall carry out mock drill within the premises as per the prevailing guidelines of safety and display proper evacuation plan in the manufacturing area in case of any emergency or accident.
- g) PP shall install adequate fire hydrant system with foam trolley attachment within premises and separate storage of water for the same shall be ensured by PP.
- h) PP shall take all the necessary steps for control of storage hazards within premises ensuring incompatibility of storage raw material and ensure the storage keeping safe distance as per the prevailing guidelines of the concerned authority.
- i) PP shall take all the necessary steps for human safety within premises to ensure that no any harm is caused to any worker/employee or labour within premises.
- j) Flame proof electrical fittings shall be provided in the plant premises, wherever applicable.
- k) Unit shall never store drum/barrels/carboys of incompatible material/chemical together.
- l) Unit shall provide effective Isolation for Process area and storage of hazardous chemicals.
- m) Unit shall provide water sprinkler to the ammonia storage cylinder.
- n) Unit shall provide chlorine leakage control emergency kit and FRP hood with scrubber system for chlorine safety.
- o) Unit shall provide safety valve and rupture disc, as well as auto dump or auto quench/, suppress system for nitration vessel safety.
- p) Unit shall provide safety valve & rupture disc to the Hydrogenation vessel.

3.	SIA/GJ/IND2/60438/2009	<b>M/s. Shubhlaxmi Pigments</b>  Plot No. 502, GIDC Panoli, Ta: Ankleshwar, Dist: Bharuch, Gujarat	EC-Reconsideration
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Category of the unit: **5(f)**

Project status: **Expansion**

- Project proponent (PP) has submitted online application vide no. SIA/GJ/IND2/60438/2009 on dated 14/02/2021 for obtaining Environmental Clearance.
- SEIAA issued TOR to PP vide letter dated 17/06/2019.
- Project proponent has submitted EIA Report prepared by M/s. Jyoti Om Chemical Research Centre Pvt. Ltd based on the TOR issued by SEIAA.
- This is an existing unit and now proposed for expansion in manufacturing of synthetic organic chemicals as mentioned below:

Sr. No	Name of the Products	CAS no. /CI no.	Quantity MT/Month			End Use of the product
			Existing	Proposed	Total	
1.	Phthalocyanine Alpha Blue	147-14-8	5.0	25.0	30.0	Plastic, Ink, Rubber, Textile, Detergent
2.	Phthalocyanine Beta Blue	147-14-8	10.0	50.0	60.0	
TOTAL					90.0	

- The project falls under B1 category of project activity 5(f) as per the schedule of EIA Notification 2006.
- PP was called for Video conference meeting for presentation on dated 25.05.2021.
- During the SEAC Video conference meeting dated 25.05.2021, Project Proponent (PP) and their technical expert and EIA consultant from M/s. Jyoti Om Chemical Research Centre Pvt. Ltd remain present and made technical presentation before the Committee.
- During the meeting, the project was appraised based on the information furnished in the EIA Report and details presented during the meeting.
- The baseline environmental quality has been assessed for various components of the environment viz. air, noise, water, biological and socioeconomic aspect. The baseline environmental study has been conducted for the study area of 10 km radial distance from project site for the period March 2018 to May 2018. Ambient Air Quality monitoring was carried out for PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, NO<sub>x</sub>, CO, HC and VOCs at Eight locations, including the project site. Values conform to the prescribed standards for Ambient Air Quality. The incremental Ground Level Concentration (GLC) has been computed using "AERMOD". The resultant concentrations are within the NAAQS. The modeling study proved that the air emissions from the proposed plant would not affect the ambient air quality of the region in any significant manner. The ambient air quality around the proposed project site will remain within the National Ambient Air Quality Standards (NAAQS).
- Risk assessment including prediction of the worst-case scenario and maximum credible accident scenarios

has been carried out. The detail proposed safeguard measures including On-Site / Off-Site Emergency Plan has been covered in the RA report.

- Upon asking regarding QCI/NABET accreditation for preparation of EIA preparation for proposed project, technical expert of PP informed that they have applied for QCI/NABET accreditation for preparation of EIA/EMP report as per the amended EIA Notification vide S.O. 648 (E) Dated 03.03.2016 and is under process.
- This is an existing unit and now applied for expansion of project proposed for manufacturing of synthetic organic chemicals at GIDC Panoli. Committee asked for status of existing unit, technical expert of PP informed that they have obtained CCA of existing plant before year 2006 and also obtained EC for expansion project in 2008 but due to critically polluted area Moratorium by MoEF & CC for GIDC Panoli area, unit has not converted into CTE and CCA. Hence Committee asked clarification regarding status of production plant and reason for not converting EC obtained in year 2008 and till date not converted it into CCA. Technical expert of PP informed that they have not converted EC of year 2008 due to GIDC Panoli declared as Critical polluted area in year 2009 and unit has not started expansion project till date and having CCA for existing plant. Also PP has informed that EC was expired for expansion project and again GIDC Panoli falls in CEPI area as per MoEF & CC Moratorium in year of 2017 and again obtained ToR from SEIAA for expansion project in Year 2019. After detailed discussion, Committee insisted for Chronology of proposed project from Commissioning of existing plant and existing plant CTE and CCA from GPCB obtained before year 2006 to till date applied for expansion project and authenticated documents regarding production data from Year 2009 to till date as EC for same expansion project obtained by PP in year of 2008.
- Committee noted that PP has addressed existing plant valid CCA and one Show Cause Notice (SCN) issued by GPCB and its compliance reply submitted by PP at GPCB. PP submitted undertaking showing that there is no legal court case and public complaint against unit. Product profile with its end-use is discussed in depth. Source of water supply is GIDC. Committee noted that PP has addressed area adequacy with layout plan for proposed project site. Looking to expansion project in same plant premises area, Committee insisted for readdress specific ToR no-1 precisely with each and every points in specific ToR no-1 regarding area adequacy for expansion plant along with clarification regarding area adequacy for proposed expansion project in same existing plot area with existing and proposed plant machinery, reaction vessels provided for proposed project with details regarding reactor capacity and reaction time for proposed product, Raw material and finished goods storage area adequacy for proposed and existing plant in tabular form, utility, ETP area, green belt area, peripheral road etc.
- Committee deliberated on Process safety, area adequacy and layout plan, Fire safety, water balance & waste water management, Flue gas and process gas emission & Air Pollution Control System, Hazardous waste matrix, EMP, CER, LDAR and solvent recovery, Green belt, Risk assessment, baseline data etc. Looking to Green belt area outside premises letter of GIDC Notified area, Committee insisted for submission of revised GIDC Notified area letter with mentioning for area provided for green belt area for PP is not allocated to another industry in future and details of How many trees planted in Proposed green belt area, along with Longitude and Latitude of proposed greenbelt area and its maintenance responsibility for green belt

development. Also PP has not presented adequately details regarding baseline data with mentioning incremental ground level concentration due to proposed project, Remedial measures for exceeding parameters under Water, Air and Soil parameters of baseline data and also not submitted its details as per prescribed B1 project format by technical expert of PP.

- Committee noted the following:
  - ✓ PP has proposed total industrial effluent, after expansion will be treated in ETP and then will be sent to CETP of PETL, Panoli for expansion project. PP presented permission letter from GPCB for additional waste water discharge to CETP of PETL.
  - ✓ Domestic effluent will be treated in ETP along with industrial effluent.
  - ✓ Agro waste/Briquette as fuel for Boiler and hot air generator and separate adequate APCM proposed for it.
  - ✓ There is no process gas emission.
  - ✓ Exhausted scrubbing media will be selling out as per the HW Rules.
  - ✓ PP submitted hazardous waste matrix mentioning source of generation, quantity and Mode of disposal and committed to comply the Hazardous and Other Wastes (Management and Trans boundary Movement) Rules 2016.
- Looking to ToR submitted by PP found inadequate as specific ToR regarding LDAR and solvent recovery format blank, specific Tor regarding renewable energy found inadequate details for provision of solar energy for proposed project, Hence Committee insisted for submission of revised ToR compliance report for ToR obtained by PP in year 2019 for proposed project with mentioning each and every specific ToR accorded by SEIAA adequately and precisely with technical details.
- **After detailed discussion, Committee unanimously decided to consider the project in one of upcoming meeting after submission of following documents,**
  1. Prescribed format for B1 project in place of B2 project along with mentioning existing production plant details for proposed project.
  2. Clarification regarding status of production plant since EC obtained and reason for not converting EC obtained in year 2008 till date it into CCA and again applied for expansion project of EC for same expansion project in year of 2021..
  3. Readdress specific ToR no-1 precisely with each and every points in specific ToR no-1 regarding area adequacy for expansion plant along with clarification regarding area adequacy for proposed expansion project in same existing plot area and mentioning existing and proposed plant machinery, reaction vessels provided for proposed project with details regarding reactor capacity and reaction time for proposed product, Raw material and finished goods storage area adequacy for proposed and existing plant in tabular form, utility,ETP area, green belt area, peripheral road etc
  4. Submit Chronology of proposed project from Commissioning of existing plant and existing plant CTE and CCA from GPCB obtained before year 2006 to till date applied for expansion project and authenticated documents regarding production data from Year 2009 to till date as EC for same expansion project obtained by PP in year of 2008
  5. Revised GIDC Notified area letter with mentioning for area provided for green belt area for PP is not





		TSDF and Co processing of Hazardous Waste & Disposal		
4	Fire & Safety	Fire Extinguisher, Fire Hydrant Line , First Aid Kit, Smoke detector	12	3.0
5	AWH Monitoring	Auditing	--	3.0
6.	Green Belt Development	Plants, Tree Guard, Manure	2.0	3.0
7.	Occupational Health	First Aid Kit, Bed, etc.	5.0	1.0
8.	PLC Automation System	Solvent Recovery Plant	10.0	2.0
9.	CER Activity	Unit will carry out CER activities in Kosamadi Village	2.0	1.0
<b>Total</b>			<b>48</b>	<b>49.5</b>

### Summary

Cost of Project in Crores per Annum:	1.62
EMP Capital Cost in Crores per Annum and Percentage:	0.48
EMP Recurring Cost in Crores per Annum and Percentage:	0.49

**A-3** **Details of CER as per OM dated 01/05/2018 (In case of project falls under CPA/SPA, CER fund allocation to be at least 1.5 times the slabs given in the OM dated 01.05.2018 for SPA and 2 times for CPA in case of Environmental Clearance as per the mechanism published vide MoEF&CC's OM vide 31.10.2019.)**

% as per the OM	Rs. in Crores
1%	3.0

In case of more than % as per the OM, mention the same.

Brief note on proposed activities for CER:

**BUDGETARY ALLOCATION FOR CER ACTIVITIES**

The unit has planned to spend 1% of the total cost of the project over a period of five years towards CER activity. So, as per the project cost **Rs. 3 Lacs** used in the CER activities. Budgetary allocation is given in below table.

Sr. No.	Activity	(Capital Cost)	Recurring Cost
		Y1	Y2
1	Installation and maintenance of RO plant in primary school at Bakarol village	2.5 Lacs	0.5 Lacs
		<b>2.5 Lacs</b>	<b>0.5 Lacs</b>

**B Land / Plot ownership details:**

**B-1 Plot area**

Existing	Proposed	Total
1575 Sq. m.	0 Sq. m.	1575 Sq. m.

**B-2**

Brief note on **Area adequacy** in line to proposed project activities:

- Total plot area of the unit is 1575 Sq.mt.
- Existing production building is having ground floor facility.
- The unit is having total 2 Nos. of manufacturing facilities.
- Alpha Plant is having 179.68 Sq meter and Beta Plant is having 368.64 Sq.mt.
- ETP area is 58.50 Sq.meter.
- Total utility area is 35 Sq.meter.
- The raw material storage area is 63.00 Sq.meter.

**B-3**

**Green belt area**

	Existing	Proposed (Sq. meter)	Total (Sq. meter)
Area in Sq. meter	388.11	300	688.11
% of total area	24.64	19.04	43.68

**In case of GREEN-BELT partly outside premises, give complete details like exact location (Lat-Long), Agreement/MoU with specific area etc.**

**C**

**Employment generation**

Existing	Proposed	Total

			10	20	30																																											
<b>In case of Indirect employment, Give details.</b>																																																
<b>D</b>	<b>WATER</b>																																															
<b>D-1</b>	<b>Source of Water Supply</b> (GIDC, Bore well, Surface water, Tanker supply etc...)																																															
	Status of permission from the concern authority. Water permission letter is attached as annexure in form-1.																																															
<b>D-2</b>	<b>Water consumption (KLD)</b>																																															
	<table border="1"> <thead> <tr> <th>Sr. No.</th> <th>Particulars</th> <th>As per Consent AW H-66826</th> <th>Actual Water Requirement</th> <th>Proposed Water Requirement</th> <th>Total after Expansion KLD</th> <th>Remarks</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Domestic</td> <td>3.00</td> <td>1</td> <td>2</td> <td>3.00</td> <td>In existing, only 1 KLD (Existing Manpower:-10 Nos) water is required for domestic purpose. Unit is already having 3 KLD water consumption permission for domestic purpose. And the after expansion unit will require only 3 KLD water for domestic purpose (Manpower:-15 nos). So no need to take extra water for domestic activity.</td> </tr> <tr> <td>2</td> <td>Gardening</td> <td>0.0</td> <td>--</td> <td>1.5</td> <td>1.5</td> <td>Fresh Water:- 1.5 KLD</td> </tr> <tr> <td>3</td> <td colspan="6" style="text-align: center;"><b>INDUSTRIAL</b></td> </tr> <tr> <td></td> <td>Process</td> <td>12</td> <td>12 (Fresh :- 6.3 + Recycled:- 5.7)</td> <td>61 (Fresh 32.7 + Recycled :- 28.3)</td> <td>73</td> <td>As per consent, unit is having permission to use 12 KLD fresh water for the manufacturing process. Unit is using only 6.3 KLD Fresh and 5.7 KLD recycled water. After proposed expansion total water requirement will be 73 KLD. Unit will use 39 KLD fresh water and 34 KLD internal recycled water.</td> </tr> <tr> <td></td> <td>washing</td> <td>2.00</td> <td>2.00</td> <td>1</td> <td>3</td> <td>Fresh water:- 3 KLD</td> </tr> </tbody> </table>						Sr. No.	Particulars	As per Consent AW H-66826	Actual Water Requirement	Proposed Water Requirement	Total after Expansion KLD	Remarks	1	Domestic	3.00	1	2	3.00	In existing, only 1 KLD (Existing Manpower:-10 Nos) water is required for domestic purpose. Unit is already having 3 KLD water consumption permission for domestic purpose. And the after expansion unit will require only 3 KLD water for domestic purpose (Manpower:-15 nos). So no need to take extra water for domestic activity.	2	Gardening	0.0	--	1.5	1.5	Fresh Water:- 1.5 KLD	3	<b>INDUSTRIAL</b>							Process	12	12 (Fresh :- 6.3 + Recycled:- 5.7)	61 (Fresh 32.7 + Recycled :- 28.3)	73	As per consent, unit is having permission to use 12 KLD fresh water for the manufacturing process. Unit is using only 6.3 KLD Fresh and 5.7 KLD recycled water. After proposed expansion total water requirement will be 73 KLD. Unit will use 39 KLD fresh water and 34 KLD internal recycled water.		washing	2.00	2.00	1	3	Fresh water:- 3 KLD
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	washing	2.00	2.00	1	3	Fresh water:- 3 KLD																																										

		Boiler	1.5	0.5	2.2	2.7	Fresh water:- 2.7 KLD (Unit will use 2 KLD live steam)
		Cooling	1.1	0.6	3.4	4	Fresh water:- 4 KLD
		Other	--	--	0.8	0.8	Unit will use 0.5 KLD Boiler Blow Down water for Water scrubber of Boiler. From scrubber 0.2 KLD water will be getting evaporated. Remaining 0.3 KLD saturated scrubber solution will be used for Ash quenching.
		Industrial Total	16.6	15.1	68.4	83.5	48.7 KLD Fresh + 34.8 Recycle
		Grand Total (1+2+3)	19.6	16.1	71.9	88	53.2 KLD Fresh + 34.8 Recycle
<b>D-3</b>		<b>Waste water generation (KLD)</b>					
	<b>Sr. No.</b>	<b>Particulars</b>	<b>As per Consent AWH - 66826</b>	<b>Actual Waste Water Generation</b>	<b>Proposed Waste water Generation KL/Day</b>	<b>Total Waste Water Generation after expansion KL/Day</b>	<b>Remarks</b>
	1	<b>DOMESTIC</b>	3.0	1.00	2.00	3	Send to the ETP.
	2	<b>INDUSTRIAL</b>					
		Process	7.5	10 (Internal Recycled:- 5.7 + Effluent:- 4.3)	45.5 (Internal Recycled:- 28.3 + Effluent:- 20.2)	55.5	Internal Recycled:- 34 Effluent: - 21.5 KLD subjected to ETP.
		Washing	2.00	2.00	1.0	3	3 KLD washing effluent Subjected to ETP.
		Boiler	0.3	0.1	0.4	0.5	0.5 KLD Boiler Blow Down will be used for Boiler Scrubber.

	Cooling	0.2	0.1	0.9	1	1 KLD Cooling tower blow down will be subjected to ETP.
	Scrubber	--	0.00	0.3	0.3	0.3 KLD Saturated Scrubber solution will be used for ash quenching.
	<b>TOTAL INDUSTRIAL</b>	<b>10</b>	<b>12.2</b>	<b>51.1</b>	<b>60.3</b>	Internal Recycled:- 34.8 KLD Effluent:- 28.5 KLD
	<b>TOTAL (DOMESTIC + INDUSTRIAL)</b>	<b>13</b>	<b>13.2</b>	<b>53.1</b>	<b>63.3</b>	Effluent internally recycled:- 34.8 KLD  Effluent subjected to ETP :- 28.5 KLD  Total 0.2 KLD effluent will be going along with sludge.  So total 28.3 KLD effluent will be subjected to M/s. PETL.

**Brief Note on worst case scenario for waste water generation(Qualitative and Quantitative):**

**Brief justification in case of no process effluent generation or no industrial effluent generation or no high concentration effluent generation from proposed project (Whichever is applicable).**

➤ Not Applicable

**D-4** Mode of Disposal & Final meeting point **(Existing and Proposed)**

**Existing and Proposed**

Domestic:	Send to the ETP.
Industrial:	Unit will neutralize 28.5 KLD Water, After achieving the norms 28.3 KLD water send to PETL, Generated sludge 0.2 KLD send to sludge drying bed, in which 0.4 KLD will be evaporation loss & 0.16 MT/D generated ETP sludge will be send to TSDF site

Clearly mention about final disposal

CETP of M/s. PETL, Panoli

D-5 Treatment facilities

**For Domestic waste water:**

Capacity of STP: --

**For Industrial waste water:** Treatment facility within premises with **capacity**

[In-house ETP (Primary, Secondary, Tertiary), MEE, Stripper, Spray Dryer, STP etc.

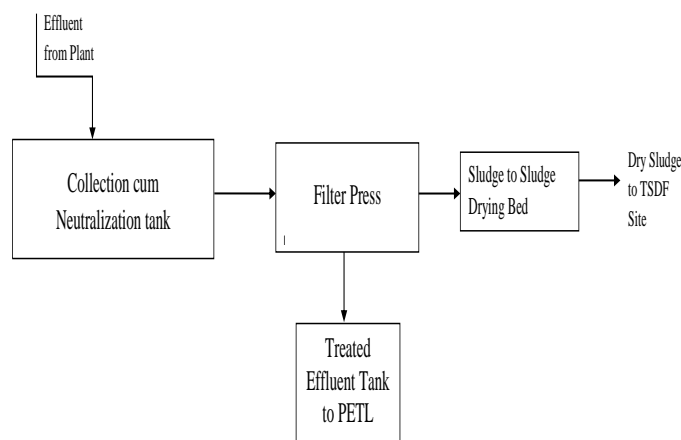
Treatment scheme including segregation at source. **(Give Characteristics of each stream i.e. COD, BOD, TDS etc.) In case of stream segregation, Separate ETP (ETP-1, ETP-2....) for each stream shall be proposed.**

Effluent from manufacturing process, Utility, Equipment Washing, will be collected in collection cum neutralization tank

Effluent will be neutralized by using of lime as per requirement till required pH range obtained in neutralization tank. Then, effluent will be passing through to filter press.

Filtrate will be collected in collection tank and subjected to M/s PETL-common effluent treatment plant. And Generated sludge from filter press will be dried by using of sludge drying bed and subjected to TSDF site..

**ETP DIAGRAM**



Note: (In case of CETP discharge) :

**Management of waste water keeping in view direction under section 18 (1) (b) of the Water (Prevention and Control of Pollution) act, 1974 issued by CPCB regarding compliance of CETP.**

Unit have recently obtain membership of 28.3 KLD in new allotted PETL capacity as per new GPCB Circular. Unit will give full fledge treatment and after achieving the norm, unit will discharge effluent to PETL. So, direction under section 18(1)(b) of the Water (Prevention and Control of Pollution) act, 1974 issued by CPCB regarding

compliance of CETP is not applicable.

Brief note on adequacy of ZLD (In case of Zero Liquid Discharge):

➤ Not Applicable

**D-6** In case of Common facility (CF) i.e. **CETP, Common Spray dryer, Common MEE, CHWIF etc.**

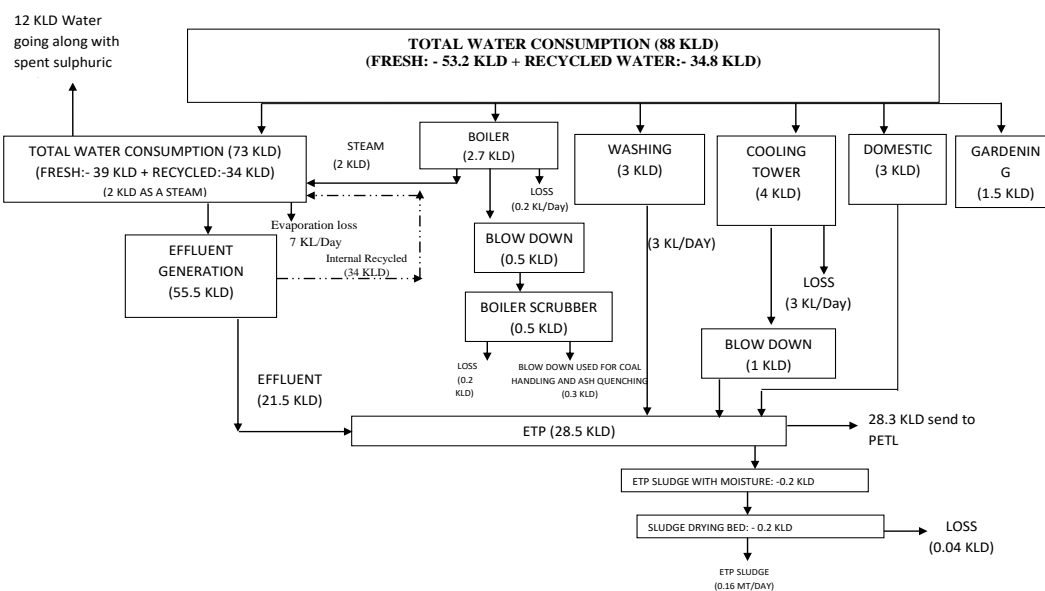
**Name of Common facility (CF) (For waste water treatment)**

➤ Panoli Effluent Treatment Plant

Membership of Common facility (CF) mentioning **total capacity, consented quantity, occupied capacity and spare capacity** and norms of acceptance of effluent from member units in-line with the direction given by GPCB vide Letter No. GPCB/P-1/8-G (5)/550706 dated 08/01/2020.

➤ Membership of Common Facility is attached as annexure in form-1.

**D-7** **Simplified water balance diagram with reuse / recycle of waste water (Existing and Proposed)**



**E** **AIR**

**E-1** **Brief Note on fuel based Heat energy requirement and worst case scenario thereof:**

Agro Waste/Briquette - 20MT/Month

Natural Gas – 25 Nm<sup>3</sup>/Hr.

**E-2** **Flue gas emission details**

No. of Boilers/TFH/Furnaces/DG sets etc. with capacities viz. TPH, Kcal/hr, MT/hr, KVA etc.

(In case of Project located within CPA/SPA , APCM shall be in line to the mechanism published in the MOEFCC's OM vide dated 31.10.2019)

**Existing & Proposed**

Sr. No.	Stack Attached To	Stack Height (m)	Quantity of Fuel	APCM	Type of Emission	Permissible Limit
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**AS PER Existing CCA No:-AWH-104589**

1.	Boiler 600 KG/Hr	11	Agro Waste/Briquette	---	PM SO <sub>2</sub> NO <sub>x</sub>	120 mg/Nm <sup>3</sup> 80 ppm 40 ppm
2.	Hot Air Generator (50,000 Kcal/Hr)	11				

**AFTER PROPOSED EXPANSION**

1.	Boiler 600 Kg/Hr	22	Agro Waste/Briquette (20 MT/Month)	Bag Filter + Water Scrubber	PM SO <sub>2</sub> NO <sub>x</sub>	120 mg/Nm <sup>3</sup> 80 ppm 40 ppm
2.	Hot Air Generator (Tray Dryer)	22	Agro Waste/Briquette (10 MT/Month)	Bag Filter + Water Scrubber		
3.	Hot Air Generator for SFD (2,00,000 Kcal/Hr)	22	Natural Gas (25 Nm <sup>3</sup> /Hr.)	Adequate stack height		
4.	D.G.Set (50 KVA)	12	Diesel (15 Lit/Hr.)	Acoustic Enclosure		

**E-3** **Process gas** i.e. Type of pollutant gases (SO<sub>2</sub>, HCl, NH<sub>3</sub>, Cl<sub>2</sub>, NO<sub>x</sub> etc.)**Existing & Proposed****As per Existing CCA No.: AWH-104589**

Sr. No.	APCM attached to	Stack Height	APCM	Pollutant	Permissible Limit
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No existing process gas emission.

**After Proposed Expansion**

1	Spin Flash Dryer	22	Bag Filter	PM	120 mg/Nm <sup>3</sup>
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**Note:**

- **Details of gaseous raw materials used in proposed project**
- **Estimation of process gas emission (Product wise and Total)**



- Requirement of the scrubbing media (KL per Day) considering solubility (Product wise and Total)
- Yearly generation of all bleed liquors (MT/KL per Annum) as mentioned above and its sound management in HW matrix.

**E-4**

**Fugitive emission** details with its mitigation measures.

Sr. No	Source	Probable Pollutant Emission	Control Measures/ APCM
<b>FUGITIVE EMISSION</b>			
1	Handling of raw material bags in storage area	Air pollutant (PM)	i) Provision of exhaust ventilation ii) Provision of PPE. iii) Provision of Job rotation to reduce exposure.
2	Solid raw material transferring to reactor	Air pollutant (PM)	Hopper will be provided with powder transfer system.
3	Solvent Recovery System	Air Pollutant (VOC)	i) Solvent recovery system with steam condensation system. ii) Pump & motors are mechanical seal type.
4	Solvent storage Area	Air Pollutant (VOC)	i) Carry out workplace area monitoring to find out concentration level in ambient air close handling system.
5	Flange joints of pipeline, pump & motors	Air pollutant (VOC)	i) Routine & periodic inspection to check leakage. ii) Preventive maintenance, Follow SOP for maintenance. iii) Pumps & motors will be mechanical seal type. iv) LDAR program will be followed. Provision of Flange guard.
6	Liquid raw material transferring to reactor	Air pollutant (VOC)	Feeding of liquid raw material will be carried out by closed pipeline and mechanical seal pump.
7	Loading /unloading at storage area	Air pollutant (VOC)	Unloading through pipeline to tank in a close system.

<b>F</b>	<p><b>Hazardous waste</b></p> <p>(As per the Hazardous and Other Wastes (Management and Transboundary Movement) Rules 2016.</p> <p>Note:</p> <ul style="list-style-type: none"> <li>➤ <b>Priorities for HW Management:</b> Pre-processing, Co-Processing, Reuse/Recycle within premises, Sell out to actual users having Rule-9 permission, TSDF/CHWIH.</li> <li>➤ <b>Quantification of hazardous waste shall be based on mass balance and calculations shall be incorporated in EMP details separately.</b></li> <li>➤ <b>Disposal to scrap vendors/vendors/traders is not allowed</b></li> </ul>								
<b>F-1</b>	<b>Hazardous waste management matrix</b>								
<b>Existing &amp; Proposed</b>									
<b>Sr . n o.</b>	<b>Name of Hazardous waste</b>	<b>Source of generat ion</b>	<b>Categ ory</b>	<b>Quantity/ Annum</b>				<b>Managemen t of HW</b>	
				<b>As per Con sent - AWH 1045 89</b>	<b>Actual Gener ation</b>	<b>Prop osed</b>	<b>Tot al</b>		
1.	ETP Waste	From ETP plant	26.2	60 MT	22 MT	38 MT	60 MT	Collection, Storage Transportati on and disposal at TSDF M/s.BEIL.	
2.	Used Oil	From Lubricati on	5.1	0.06 KL.	0.06 KL	0.44 KL	0.5 KL	Collection, Storage & Reused within the premises.	
3.	Empty barrels/containers /liners contaminated Hazardous chemicals/wastes	From Packing Material	33.3	19.2 4 MT	19.24 MT	0.76 MT	20 MT	Collection, Strong, Decontamin ation & Reused	
4.	Recoverable Solvent	Generat ed from CPC	28.6	0	15 MT	1040 MT	10 55 MT	Collection, Storage, Transportati	

		BETA BLUE						on & recover and reuse internally.
5.	Spent Sulphuric Acid	Generated from CPC Alpha Blue	B15	1260 MT	1032 MT	5160 MT	6192 MT	Collection, Storage, Transportation & sell to end user having Rule-9 Permission.
-								
<b>F-2</b>	Membership details of <b>TSDF, CHWIF</b> etc. <b>(For HW management)</b>							
Details of Membership letter no. & Date with spare capacity of the Common Facility. ➤ Membership letter is attached as a Annexure in form-1.								
<b>F-3</b>	Details of Non-Hazardous waste & its disposal <b>(MSW and others)</b>							
Sr. No.	Name of Non-Hazardous waste	Quantity MT/Annum	Handling/ Disposal					
1	Wood Waste	2	Given to authorized scrap dealers					
2	Glass Waste	1	Given to authorized scrap dealers					
3	Paper waste	0.5	Given to authorized scrap dealers					
4	Fly Ash	3	Given to authorized scrap dealers					
<b>G</b>	<b>Solvent management, VOC emissions</b> etc.							
<b>G-1</b>	Brief Note on types of solvents, Details of Solvent recovery, % recovery, reuse of recovered Solvents etc.							
<b>Sr. No.</b>	<b>Name of Representative Product</b>	<b>Name of Solvent used</b>	<b>Product Quantity in MT/Month</b>	<b>Solvent Quantity used in ton per ton of product</b>	<b>Solvent recovered Quantity in Ton per ton of</b>	<b>Solvent Recovered Quantity in MT/Month</b>	<b>Percentage Recovery</b>	
1.	Phthalocyanine Beta Blue	Xylene IBA	60	1.52	1.46	87.88	96%	
<b>G-2</b>	<b>Brief Note on LDAR proposed:</b>							
➤ Leak Detection and Repair (LDAR) is a program implemented to comply with environmental regulations for reducing the fugitive emissions of targeted chemicals into the environment.								

nt. In addition to control fugitive emissions, LDAR Program also helps the industries to reduce unwanted losses of chemicals and thereby conserving energy & increasing their profitability.

**G-3** | **VOC emission** sources and its mitigation measures

- Provision of mechanical seal in pump.
- Regular inspection of tank roof seals.
- Adequate measures for the minimization/prevention of the fugitive emission.
- Regular maintenance of valves, pumps and other equipment to prevent leakage.
- Entire process to be carried out in the closed reactor with proper maintenance of temperature.
- Regular periodic monitoring of work area to check the fugitive emission.
- Adequate stack heights as per the GPC Bestimation will be provided at all locations to reduce GLCs of pollutants.
- Air Pollution Control System will be installed in the plant.

**H** | **SAFETY details**

**H-1** | **Details regarding storage of Hazardous chemicals**  
**(For tank storages only including spent acid and spent solvent tanks)**

Sr.no	Name of Chemical	Capacity of Tank	Number of Tanks	Hazardous Characteristics of Chemical
1	Sulphuric Acid	15 KL	1	Corrosive & Reactive

**Brief note on storage of Hazardous chemicals in Tanks**

**Brief note on storage of Hazardous chemicals other than Tanks i.e. Drum, Barrels, Carboys, Bags etc.**

- MOC of drum will be as per compatibility of chemical and drum materials. Unit will provide flame proof electrical fitting gas and firefighting measures to eliminate fire as well as other hazard. Spillage kit will be available at require area.

**Safety details of Hazardous Chemicals:**

<b>Type of Hazardous Chemicals</b>	<b>Safety measures</b>																		
<b>Flammable</b>	Storage in compatible storage unit with flame proof fitting, also provide firefighting measures. Only trained person allowed to handle																		
<b>Toxic</b>	Storage in compatible storage unit with safe distance with other chemicals, Only trained person allowed to handle																		
<b>Acid</b>	Storage material will be as per compatibility class. Trained person will handle that.																		
<b>Corrosive</b>	Storage in compatible storage unit with safe distance with other chemicals, Only trained person allowed to handle																		
➤ <b>Applicability of PESO :</b>																			
H-2	<b>Types of hazardous Processes involved and its safety measures: (Hydrogenation process, Nitration process, Chlorination process, Exothermic Reaction etc.)</b>																		
- - There will be no any hazardous processes involved.																			
<b>Type of Process</b>	<b>Safety measures including Automation</b>																		
----	----																		
H-3	<b>Details of Fire Load Calculation</b>																		
<table border="1"> <tr> <td>Total Plot Area:</td> <td>1575</td> </tr> <tr> <td>Area utilized for plant activity:</td> <td>548.62</td> </tr> <tr> <td>Area utilized for Hazardous Chemicals Storage:</td> <td>44.70</td> </tr> <tr> <td>Number of Floors:</td> <td>Only Ground Floor</td> </tr> <tr> <td>Water requirement for firefighting in KLD :</td> <td>4.0</td> </tr> <tr> <td>Water storage tank provided for firefighting in KLD:</td> <td>200 KL</td> </tr> <tr> <td>Details of Hydrant Pumps:</td> <td>Diesel pump</td> </tr> <tr> <td>Nearest Fire Station :</td> <td>1.3 km Panoli Fire station</td> </tr> <tr> <td>Applicability of Off Site Emergency Plan:</td> <td>--</td> </tr> </table>		Total Plot Area:	1575	Area utilized for plant activity:	548.62	Area utilized for Hazardous Chemicals Storage:	44.70	Number of Floors:	Only Ground Floor	Water requirement for firefighting in KLD :	4.0	Water storage tank provided for firefighting in KLD:	200 KL	Details of Hydrant Pumps:	Diesel pump	Nearest Fire Station :	1.3 km Panoli Fire station	Applicability of Off Site Emergency Plan:	--
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Details of Hydrant Pumps:	Diesel pump																		
Nearest Fire Station :	1.3 km Panoli Fire station																		
Applicability of Off Site Emergency Plan:	--																		

H-4	<b>Details of Fire NOC/Certificate:</b>	
Fire/Noc Certificate attached as Annexure.		
H-5	<b>Details of Occupational Health Centre (OHC):</b>	
-		
	Number of permanent Employee :	20 Nos.
	Number of Contractual person/Labour :	5 Nos.
	Area provided for OHC:	15
	Number of First Aid Boxes :	2 Nos.
	Nearest General Hospital :	3 KM
	Name of Antidotes to be store in plant :	Folinic acid (Leucovorin),  B nzocaine (Novocaine) solution for eye, Dexona,Avil

- During meeting, Committee noted that PP presented prescribed format for B1 project in place of B2 project along with mentioning existing production plant. PP presented that unit was established based on NOC/CCA in 1995 (before EIA notification 2006). After that EC was granted in 2009, but due to moratorium guideline of critical zone for period unit was not able to convert in to CCA. Also, validity of EC is for 7 years. Validity of granted EC was completed in moratorium period, thus unit have to again apply for EC expansion and readdress ToR no-1. PP presented production details from year 2009 to 2020 and revised GIDC Notified area letter with mentioning for area provided for green belt area for PP is not allocated to another industry in future and details of how many trees planted in Proposed green belt area, along with Longitude and Latitude of proposed greenbelt area and its maintenance responsibility for green belt development. PP submitted baseline data along with incremental in GLC and each and every specific ToR compliance in tabular form.
- Committee found reply submitted by PP were satisfactory.
- **After detailed discussion, Committee unanimously decided to recommend the project to SEIAA, Gujarat for grant of Environment Clearance with the following specific condition:**

**SPECIFIC CONDITIONS:**

1. Project proponent (PP) shall install CEMS [**Continuous Emission Monitoring System**] in line to CPCB directions to all SPCB vide letter no. B-29016/04/06PCI-1/5401 dated 05/02/2014 for effluent discharge and air emission as per pollutants discharge/emission from respective project and an arrangement shall also be done for reflecting the online monitoring results on the company's server, which can be assessable by the GPCB/CPCB on real time basis. [**For Small/Large/Medium (Red Category) & Whichever (Air emission & Effluent discharge) is applicable**].

2. Close loop solvent recovery system with adequate condenser system shall be provided to recover solvent vapours in such a manner that recovery shall be maximum and recovered solvent shall be reused in the process within premises.
3. Leak Detection and Repair (LDAR) program shall be prepared and implemented as per the CPCB guidelines. LDAR Logbooks shall be maintained.
4. The National Ambient Air Quality Emission Standards issued by the Ministry vide G. S. R. No. 826 (E) dated 16th November, 2009 shall be complied with.
5. National Emission Standards for Organic Chemicals Manufacturing Industry issued by the Ministry vide G. S. R. 608 (E) dated 21/07/2010 and amended from time to time shall be followed.
6. Unit shall have to adhere to the prevailing area specific policies of GPCB with respect to the discharge of pollutants, and shall carry out the project development in accordance & consistence with the same.
7. The project proponent must strictly adhere to the stipulations made by the Gujarat Pollution Control Board, State Government and/or any other statutory authority.
8. All measures shall be taken to avoid soil and ground water contamination within premises.
9. GPCB shall ensure compliance of direction under section 18 (1) (b) of the Water (Prevention and Control of Pollution) act, 1974 issued by CPCB regarding compliance of CETP and also that the pollution load is not increased in the CPA/SPA for the compliance of Hon'ble NGT order.

## **WATER**

1. Total water requirement for the project shall not exceed 88 KLD. Unit shall reuse 34.80 KLD of treated industrial effluent within premises. Hence, fresh water requirement shall not exceed 53.20 KLD and it shall be met through GIDC supply only. Prior permission from concerned authority shall be obtained for withdrawal of water.
2. The industrial effluent generation from the project shall not exceed 60.30 KLD after expansion.
3. Industrial effluent shall be segregated into two streams (1) High COD and TDS effluent (2) Low COD and TDS effluent and it shall be managed as below.
  - **High COD and TDS effluent (25.50 KLD)**
    - 25.50 KLD, High COD and TDS effluent from process, washing and utility shall be treated in ETP consists of Primary treatment units. Then treated effluent shall be sent to CETP of M/s PETL for further treatment and disposal.
  - **Low COD and TDS effluent (34.50 KLD):**
    - 34 KLD, Low COD effluent from process shall be directly reused back in next batch and 0.5 KLD, boiler blow down shall reused for scrubber make up and ultimately disposal for boiler ash quenching within premises.
4. Unit shall discharge wastewater to CETP of GIDC Panoli, PETL only after complying with inlet norms

prescribed by GPCB and ensuring content of effluent for COD/VOC so as not to get air borne during evaporation in order to achieve no adverse impacts on Environment and Human Health.

5. Domestic wastewater generation shall not exceed 3 KL/day for proposed project and it shall be treated in ETP. It shall not be disposed off through soak pit/ septic tank.

#### **AIR**

6. Unit shall not exceed fuel consumption and provide APCM and Stack height as mentioned in flue gas matrix.
7. Unit shall provide APCM and stack height as mentioned in process gas matrix.
8. PP shall use approved fuels only as fuel in boilers.

#### **HAZARDOUS & SOLID WASTE**

1. All hazardous solid waste shall be managed as mentioned in hazardous waste matrix.
2. The unit shall submit the list of authorized end users of hazardous wastes along with MoU signed with them at least two months in advance prior to the commencement of production. In the absence of potential buyers of these items, the unit shall restrict the production of the respective items.

#### **GREENBELT AREA**

3. The PP shall develop green belt within premises (388 sq. Meter within premises and 300 sq. Meter outside premises i.e. 688 Sq m i.e. 43.68 % of the total plot area) as per the undertaking submitted before SEAC. Green belt shall be developed with native plant species that are significant and used for the pollution abatement as per the CPCB guidelines. It shall be implemented within 3 years of operation phase in consultation with GPCB.

#### **10. Safety & Health:**

- a) PP shall obtain PESO permission for the storage and handling of hazardous chemicals.
- b) PP shall provide Occupational Health Centre (OHC) as per the provisions under the Gujarat Factories Rule 68-U.
- c) PP shall obtain fire safety certificate / Fire No-Objection certificate (NOC) from the concern authority as per the prevailing Rules / Gujarat Fire Prevention and Life Safety Measures Act, 2016.
- d) Unit shall adopt functional operations/process automation system including emergency response to eliminate risk associated with the hazardous processes.
- e) PP shall carry out mock drill within the premises as per the prevailing guidelines of safety and display proper evacuation plan in the manufacturing area in case of any emergency or accident.
- f) PP shall install adequate fire hydrant system with foam trolley attachment within premises and separate storage of water for the same shall be ensured by PP.
- g) PP shall take all the necessary steps for control of storage hazards within premises ensuring incompatibility of storage raw material and ensure the storage keeping safe distance as per the



prevailing guidelines of the concerned authority.

- h) PP shall take all the necessary steps for human safety within premises to ensure that no any harm is caused to any worker/employee or labor within premises.
- i) Flame proof electrical fittings shall be provided in the plant premises, wherever applicable.
- j) Unit shall provide effective fire hydrants, water monitors & foam application system at solvent storage area and unit shall provide adequate safety system such as water sprinklers, water curtains, foam pouring system etc. to restrict cascade fire emergency in solvent storage area.

4.	SIA/GJ/IND2/61039/2007	<b>M/s. Shyam Dye Chem</b>  Plot no:-6919 & 6901, GIDC Estate, Ankleshwar, Taluka- Ankleshwar, District Bharuch	EC-Reconsideration
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Category of the unit: **5(f)**

Project status: **Expansion**

- Project proponent (PP) has submitted online application vide no. SIA/GJ/IND2/61039/2007 on dated 22.02.2021 for obtaining Environmental Clearance.
- SEIAA issued TOR to PP vide letter dated 30/07/2019 .
- Project proponent has submitted EIA Report prepared by M/s. Jyoti Om Chemical Research Centre Pvt. Ltd based on the TOR issued by SEIAA.
- This is an existing unit and now proposes for expansion of Synthetic Organic Chemicals plant as below,

Sr. No.	Products	CAS/CI No.	Quantity MT/MONTH			End User
			As per Existing CCA	Proposed	Total After Expansion	
1.	Solvent Dyes (Azo Group)		3	97	100	Utilized to color candles and waxes, ink and inkjets, wood stains and coatings, and a variety of other non-polar, hydrocarbon based materials.
1.1	Solvent Brown 1	11285	Either/ Or	Either/ Or	Either/ Or	
1.2	Solvent Yellow 72	127450				
1.3	Solvent Oil Orange	2646-17				
1.4	Solvent Oil Red-24	85-83-6				
1.5	Solvent Oil Red-23	85-86-9				
1.5	Solvent Violet-13	81-48-1				
1.6	Solvent Red-111	82-38-2				
1.7	Solvent Red-18	6483-64-3				

1.8	Solvent Green-3	128-80-3				
1.9	Solvent Blue-36	14233-37-5				
1.10	Solvent Blue-35	17354-14-2				
1.11	Solvent Brown-41	1052-38-6				
1.12	Solvent Red-1	1229-55-6				
1.13	Solvent Yellow-2	60-11-7				
2.	Azo Pigment (Organic Yellow Pigment)		0	100		Plastics, Textile, Wool, Silk, Cotton Linen, Printing Ink Food, Paints
2.1	Pigment Yellow-1	11680		Either / Or		
2.2	Pigment Yellow-3	11710				
2.3	Pigment Yellow-2	6486-26-6				
2.4	Pigment Orange- 14	6837-37-2				
2.5	Pigment Rubin Toner	5281-04-9				
2.6	Pigment Red - 53:1	5160-02-1				
2.7	Pigment Red - 60:1	17418-58-5				
2.8	Pigment Red - 2	6041-94-7				
2.9	Pigment Red - 3	2425-85-6				
2.10	Pigment Red - 4	2814-77-9				
2.11	Pigment Red - 8	6410-30-6				
2.12	Pigment Red - 12	6410-32-8				
2.13	Pigment Red - 31	6448-96-0				
2.14	Pigment Red - 32	6410-29-3				
2.15	Pigment Red - 48	7023-61-2				
2.16	Pigment Red - 53	2092-56-0				
2.17	Pigment Red - 57	5281-04-9				
2.18	Pigment Red - 112	6535-46-2				
2.19	Pigment Red - 210	61932-63-6				
2.20	Pigment Yellow - 14	5468-75-7				
2.21	Pigment Yellow - 65	6528-34-3				

2.22	Pigment Yellow – 12	6358-85-6					
2.23	Pigment Yellow - 17	4531-49-1					
2.24	Pigment Yellow - 13	5102-83-0					
2.25	Pigment Yellow - 74	6358-31-2					
2.26	Pigment Yellow - 83	5567-15-7					
3.	Basic Dyes		0	100			
3.1	Bismark Brown	21000		Either/ Or			pulp and paper, alumina, soap and detergents, petroleum products and chemical production
3.2	Basic Brown- 1	10114-58-6					
3.3	Basic Orange- 2	532-82-1					
3.4	Basic Violet- 16	6359-49-1					
3.5	Basic Green- 4	2437-29-8					
3.6	Basic Blue- 9	7220-79-3					
3.7	Basic Crysoline	10114-58-6					
4	Acid Dyes		3	97			
4.1	Acid Orange-II	15510		Either/ Or			Dyeing protein fibers
4.2	Acid Scarlet-3R	10385					
4.3	Acid Blue-7	3486-30-4					
4.4	Acid Blue-1	3844-45-9					
4.5	Acid Violet - 49	1694-09-3					
4.6	Acid Blue - 113	3351-05-1					
4.7	Acid Red – 52	3520-42-1					
4.8	Acid Blue - 3	20262-76-4					
4.9	Acid Blue – 194	93050-78-3					

4.10	Acid Blue – 119	1324-80-7				
4.11	Acid Yellow – 42	5850-35-1				
4.12	Acid Brown -55	5858-51-5				
4.13	Acid Yellow – 11	6359-82-6				
4.14	Acid Red – 88	6359-82-6				
4.15	Acid Yellow – 36	587-98-4				
4.16	Acid Brown – 14	5850-16-8				
4.17	Acid Yellow – 113	3351-05-1				
4.18	Acid Yellow - 49	12239-15-5				
5	Reactive Dyes		3	97		Dyeing of cellulose like cotton or flax
5.1	Remazole Black	20505	Either/ Or	Either/ Or		
5.2	Remazole Orange	17757				
5.3	Reactive Golden Yellow	--				
5.4	Reactive Red	70210-20-7				
6.	Azo Intermediate		3	97		Cotton, fabric dyeing and printing
6.1	Fast Garnet GBC	--				
	Total		3	97	100	

- The project falls under B1 category of project activity 5(f) as per the schedule of EIA Notification 2006.
- PP was called for Video conference meeting for presentation on dated 25.05.2021.
- During the SEAC Video conference meeting dated 25.05.2021, Project Proponent (PP) and their technical expert and EIA consultant from M/s. Jyoti Om Chemical Research Centre Pvt. Ltd remain present and made technical presentation before the Committee.
- During the meeting, the project was appraised based on the information furnished in the EIA Report and details presented during the meeting.
- The baseline environmental quality has been assessed for various components of the environment viz. air, noise, water, biological and socioeconomic aspect. The baseline environmental study has been conducted

for the study area of 10 km radial distance from project site for the period March 2018 to May 2018. Ambient Air Quality monitoring was carried out for PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, NO<sub>x</sub>, CO, HC and VOCs at Eight locations, including the project site. Values conform to the prescribed standards for Ambient Air Quality. The incremental Ground Level Concentration (GLC) has been computed using "AERMOD". The resultant concentrations are within the NAAQS. The modeling study proved that the air emissions from the proposed plant would not affect the ambient air quality of the region in any significant manner. The ambient air quality around the proposed project site will remain within the National Ambient Air Quality Standards (NAAQS).

- Risk assessment including prediction of the worst-case scenario and maximum credible accident scenarios has been carried out. The detail proposed safeguard measures including On-Site / Off-Site Emergency Plan has been covered in the RA report.
- Upon asking regarding QCI/NABET accreditation for preparation of EIA preparation for proposed project, technical expert of PP informed that they have applied for QCI/NABET accreditation for preparation of EIA/EMP report as per the amended EIA Notification vide S.O. 648 (E) Dated 03.03.2016 and is under process.
- This is an existing unit and now applied for expansion of project proposed for manufacturing of synthetic organic chemicals at GIDC Ankleshwar. Committee asked for status of existing unit, technical expert of PP informed that they have obtained CCA of existing plant before year 2006 and also obtained EC for expansion project in 2007 but due to critically polluted area Moratorium by MoEF & CC for GIDC Panoli area, unit has not converted into CTE and CCA. Hence Committee asked clarification regarding status of production plant and reason for not converting EC obtained in year 2008 and till date not converted it into CCA. Technical expert of PP informed that they have not converted EC of year 2008 due to GIDC Panoli declared as Critical polluted area in year 2009 and unit has not started expansion project till date and having CCA for existing plant. Also PP has informed that EC was expired for expansion project and again GIDC Ankleshwar falls in CEPI area as per MoEF & CC Moratorium in year of 2017 and again obtained ToR from SEIAA for expansion project in Year 2019. After detailed discussion, Committee insisted for Chronology of proposed project from Commissioning of existing plant and existing plant CTE and CCA from GPCB obtained before year 2006 to till date applied for expansion project and authenticated documents regarding production data from Year 2009 to till date as EC for same expansion project obtained by PP in year of 2007.
- Committee noted that PP has addressed existing plant valid CCA and two Show Cause Notice (SCN) issued by GPCB and its compliance reply submitted by PP at GPCB. PP submitted undertaking showing that there is no legal court case and public complaint against unit. Product profile with its end-use is discussed in depth. Source of water supply is GIDC. Committee noted that PP has addressed area adequacy with layout plan for proposed project site. Looking to expansion project in same plant premises area, Committee insisted for readdress specific ToR no-1 precisely with each and every points in specific ToR no-1 regarding area adequacy for expansion plant along with clarification regarding area adequacy for proposed expansion project for expansion of existing production from 3 MT/Month to 100 MT/Month in same existing plot area with existing and proposed plant machinery, reaction vessels provided for proposed project with details

regarding reactor capacity and reaction time for proposed product, Raw material and finished goods storage area adequacy for proposed and existing plant in tabular form, utility,ETP area, green belt area, peripheral road etc.

- Committee deliberated on Process safety, area adequacy and layout plan, Fire safety, water balance & waste water management, Flue gas and process gas emission & Air Pollution Control System, Hazardous waste matrix, EMP, CER, LDAR and solvent recovery, Green belt, Risk assessment, baseline data etc. Looking to Green belt area outside premises letter of GIDC Notified area, Committee insisted for submission of revised GIDC Notified area letter with mentioning for area provided for green belt area for PP is not allocated to another industry in future and details of How many trees planted in Proposed green belt area , along with Longitude and Latitude of proposed greenbelt area and its maintenance responsibility for green belt development. Also PP has not presented adequately details regarding baseline data with mentioning incremental ground level concentration due to proposed project, Remedial measures for exceeding parameters under Water, Air and Soil parameters of baseline data and also not submitted its details as per prescribed B1 project format by technical expert of PP.
- Committee noted the following:
  - ✓ PP has proposed total industrial effluent, after expansion will be treated in ETP and then will be sent to CETP of ETL, Ankleshwar for expansion project. PP presented permission letter from GPCB for additional waste water discharge to CETP of ETL.
  - ✓ Domestic effluent will be treated in ETP along with industrial effluent.
  - ✓ Natural gas as fuel for Boiler and hot air generator .
  - ✓ There is no process gas emission.
  - ✓ Exhausted scrubbing media will be selling out as per the HW Rules.
  - ✓ PP submitted hazardous waste matrix mentioning source of generation, quantity and Mode of disposal and committed to comply the Hazardous and Other Wastes (Management and Trans boundary Movement) Rules 2016.
- Looking to ToR submitted by PP found inadequate as specific ToR regarding LDAR and solvent recovery, specific Tor regarding renewable energy found inadequate details for provision of solar energy for proposed project, Hence Committee insisted for submission of revised ToR compliance report for ToR obtained by PP in year 2019 for proposed project with mentioning each and every specific ToR accorded by SEIAA adequately and precisely with technical details.
- **After detailed discussion, Committee unanimously decided to consider the project in one of upcoming meeting after submission of following documents,**
  1. Prescribed format for B1 project in place of B2 project along with mentioning existing production plant details for proposed project.
  2. Clarification regarding status of production plant since EC obtained and reason for not converting EC obtained in year 2007 till date it into CCA and again applied for expansion project of EC for same expansion project in year of 2021..

3. Readdress specific ToR no-1 precisely with each and every points in specific ToR no-1 regarding area adequacy for expansion plant along with clarification regarding area adequacy for proposed expansion project from 3 MT/Month to 100 MT/Month in same existing plot area and mentioning existing and proposed plant machinery, reaction vessels provided for proposed project with details regarding reactor capacity and reaction time for proposed product, Raw material and finished goods storage area adequacy for proposed and existing plant in tabular form, utility,ETP area, green belt area, peripheral road etc
  4. Submit Chronology of proposed project from Commissioning of existing plant and existing plant CTE and CCA from GPCB obtained before year 2006 to till date applied for expansion project and authenticated documents regarding production data from Year 2009 to till date as EC for same expansion project obtained by PP in year of 2007.
  5. Revised GIDC Notified area letter with mentioning for area provided for green belt area for PP is not allocated to another industry in future and details of how many trees planted in Proposed green belt area, along with Longitude and Latitude of proposed greenbelt area and its maintenance responsibility for green belt development.
  6. Adequate details regarding baseline data with mentioning incremental ground level concentration due to proposed project, Remedial measures for exceeding parameters under Water, Air and Soil parameters of baseline data in study area of proposed project which is submitted in EIA report for proposed project.
  7. Submission of revised ToR compliance report for ToR obtained by PP in year 2019 for proposed project with mentioning each and every specific ToR accorded by SEIAA adequately and precisely with technical details.
- PP submitted reply of above query generated on SEAC VC meeting dated 25/05/2021 through e-mail.
  - This proposal is reconsidered in SEAC meeting dated **05.08.2021**. PP along with their technical expert/consultant, M/s. Jyoti Om Chemical Research Centre Pvt. Ltd remains present in the meeting and made presentation before Committee.
  - PP submitted revised salient features of water, air and Hazardous waste management are as under,

Sr. no.	Particulars	Details		
<b>A-1</b>	<b>Total cost of Proposed Project</b> (Rs. in Crores):			
		Existing	Proposed	Total
		0.5Crores	3.29Crores	3.79Crores
<b>A-2</b>	<b>Details of Environmental Management Plan (EMP)</b>	As below:		
<b>Sr. No</b>	<b>Unit</b>	<b>Detail</b>	<b>Capital Cost (Rs. In Crores)</b>	<b>Total Recurring Cost (Rs. In Crores)</b>
1	Waste Water	ETP & Send to ETL	1.295	2.0497
2	Air	Scrubber	0.10	0.02
3	Hazardous Management	HWSA, Membership Of TSDF and Co processing of	0.02	0.00804

		Hazardous Waste & Disposal		
4	Fire & Safety	Fire Extinguisher, Fire Hydrant Line , First Aid Kit, Smoke detector, Sprinkler System	0.30	0.0182
5	AWH Monitoring	Auditing	0	0.01
6.	Green Belt Development	Plants, Tree Guard, Manure	0.01	0.01
7.	Occupational Health	--	0.05	0.0001
8	Automation	Automation for Sprinkler system and Reactors	0.10	0.0016
9	CER Activity	Provide RO system and Street light	0.03	0.003
<b>Total</b>			<b>1.905</b>	<b>2.12064</b>

### Summary

Cost of Project in Crores per Annum:	3.29
EMP Capital Cost in Crores per Annum and Percentage:	1.905 (58%)
EMP Recurring Cost in Crores per Annum and Percentage:	2.122 (64.49%)

**A-3** **Details of CER as per OM dated 01/05/2018 (In case of project falls under CPA/SPA, CER fund allocation to be at least 1.5 times the slabs given in the OM dated 01.05.2018 for SPA and 2 times for CPA in case of Environmental Clearance as per the mechanism published vide MoEF&CC's OM vide 31.10.2019.)**

% as per the OM	Rs. in Crores
1%	0.033

In case of more than % as per the OM, mention the same.

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Brief note on proposed activities for CER:

CER ACTIVITIES TO BE DONE (AMOUNT IN LAKH)						
Sr. No.	Activities	Name of the Village / Place	Capital Cost	Maintenance Cost		Total (Lakh)
			Year - 1	Year - 2	Year - 3	
1	Drinking Water facility and	PardimokhaGrampanchayat	2	0.08	0.08	2.16
2	Street Light		1	0.07	0.07	1.14
<b>Total</b>			<b>3</b>	<b>0.15</b>	<b>0.15</b>	<b>3.3</b>

**B Land / Plot ownership details:**

Expansion will be mad in existing plot.

**B-1 Plot area**

Existing	Proposed	Total
1607.97Sq. m.	0 Sq. m.	1607.97Sq. m.

**B-2 Brief note on Area adequacy in line to proposed project activities:**

- Unit will provide separate storage area for product, Raw material, Hazardous waste.

**B-3 Green belt area**

	Existing	Proposed (Sq. meter)	Total (Sq. meter)
Area in Sq. meter	443.62 (Inside Plant Premises)	95 (Out side Plant Premises)	538.62
% of total area	28%	5.9%	33.9%

**In case of GREEN-BELT partly outside premises, give complete details like exact location (Lat-Long), Agreement/MoU with specific area etc.**

**C Employment generation**

Existing	Proposed	Total
6	10	16

**In case of Indirect employment, Give details.**

**D WATER**

D-1 Source of Water Supply  
(GIDC, Bore well, Surface water, Tanker supply etc...)  
GIDC Panoli

Status of permission from the concern authority.

- Water permission letter is attached as annexure in form-1.

**D-2 Water consumption (KLD)**

	Existing KLD	Proposed (Additional)K LD	Total after Expansion KLD	Remarks
(A) Domestic	0.5	2.5	3	---
(B) Gardening	1	1	2	---
<b>(C) Industrial</b>				
Process	1.50	26.5	28	Fresh- 3 KLD Recycled – 25 KLD
Washing	2.5	1.5	4	
Boiler	0.5	1.5	2	---
Cooling	---	20	20	Recycled Water- 20 KLD
Others	---	---	---	
<b>Industrial Total</b>	<b>4.5</b>	<b>49.5</b>	<b>54</b>	
<b>Grand Total (A+B+C)</b>	<b>6</b>	<b>53</b>	<b>59</b>	Fresh- 14 KLD Recycled – 45 KLD

**D-3 Waste water generation (KLD)**

Category	Existing KLD	Proposed (Additional) KLD	Total after Expansion KLD	Remarks
(A) Domestic	0.5	2.5	3.0	Treated in to ETP
<b>(B) Industrial</b>				
Process	1.4	49.6	51	
Washing	2.5	1.5	4.0	
Boiler	0.1	0.9	1	
Cooling	---	3	3	
Others	---	---	---	
<b>Total Industrial waste water</b>	<b>4.0</b>	<b>55</b>	<b>59</b>	Treated in to ETP

**Brief Note on worst case scenario for waste water generation(Qualitative and Quantitative):**

**Brief justification in case of no process effluent generation or no industrial effluent generation or no high concentration effluent generation from proposed project (Whichever is applicable).**

➤ Not Applicable

**D-4 Mode of Disposal & Final meeting point (Existing and Proposed)**

**Existing and Proposed**

Domestic:	Treatment into ETP
Industrial:	13.3 KLD Send to ETL after treatment. And remaining effluent will pass for further treatment through RO & MEE and maintain ZLD for additional effluent.

Clearly mention about final disposal

CETP of M/s. ETL

**D-5 Treatment facilities**

ETP – 120 KLD (Primary)

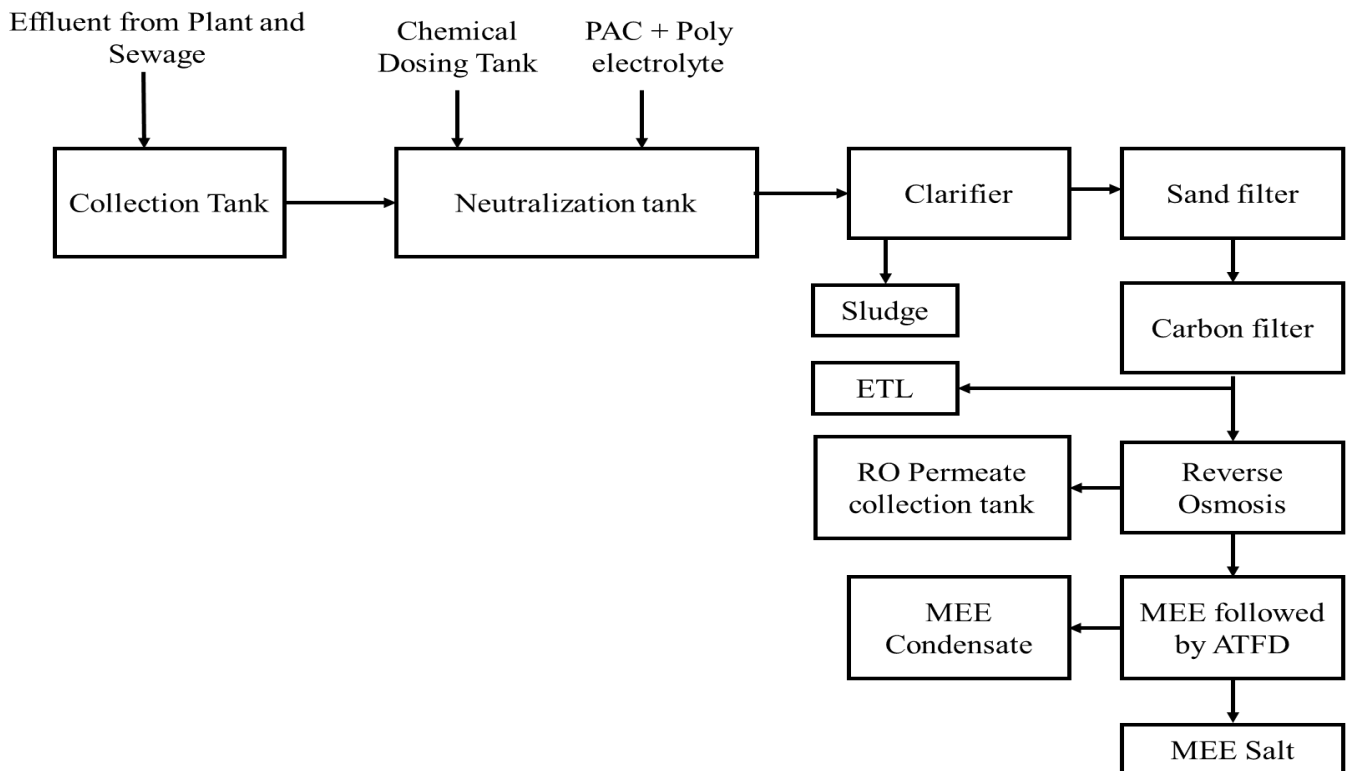
**For Domestic waste water:**

Capacity of STP: -- NA

**For Industrial waste water:** Treatment facility within premises with **capacity**

[In-house ETP (Primary, Secondary, Tertiary), MEE, Stripper, Spray Dryer, STP etc.

Treatment scheme including segregation at source. **(Give Characteristics of each stream i.e. COD, BOD, TDS etc.) In case of stream segregation, Separate ETP (ETP-1, ETP-2....) for each stream shall be proposed.**



Note: (In case of CETP discharge) :

**Management of waste water keeping in view direction under section 18 (1) (b) of the Water (Prevention and Control of Pollution) act, 1974 issued by CPCB regarding compliance of CETP.**

- Unit will maintain Existing discharge its quantity and quality will not change. Thus Section 18(1)(b) will comply

Brief note on adequacy of ZLD (In case of Zero Liquid Discharge):

- Not Applicable

**D-6** In case of Common facility (CF) i.e. **CETP, Common Spray dryer, Common MEE, CHWIF etc.**

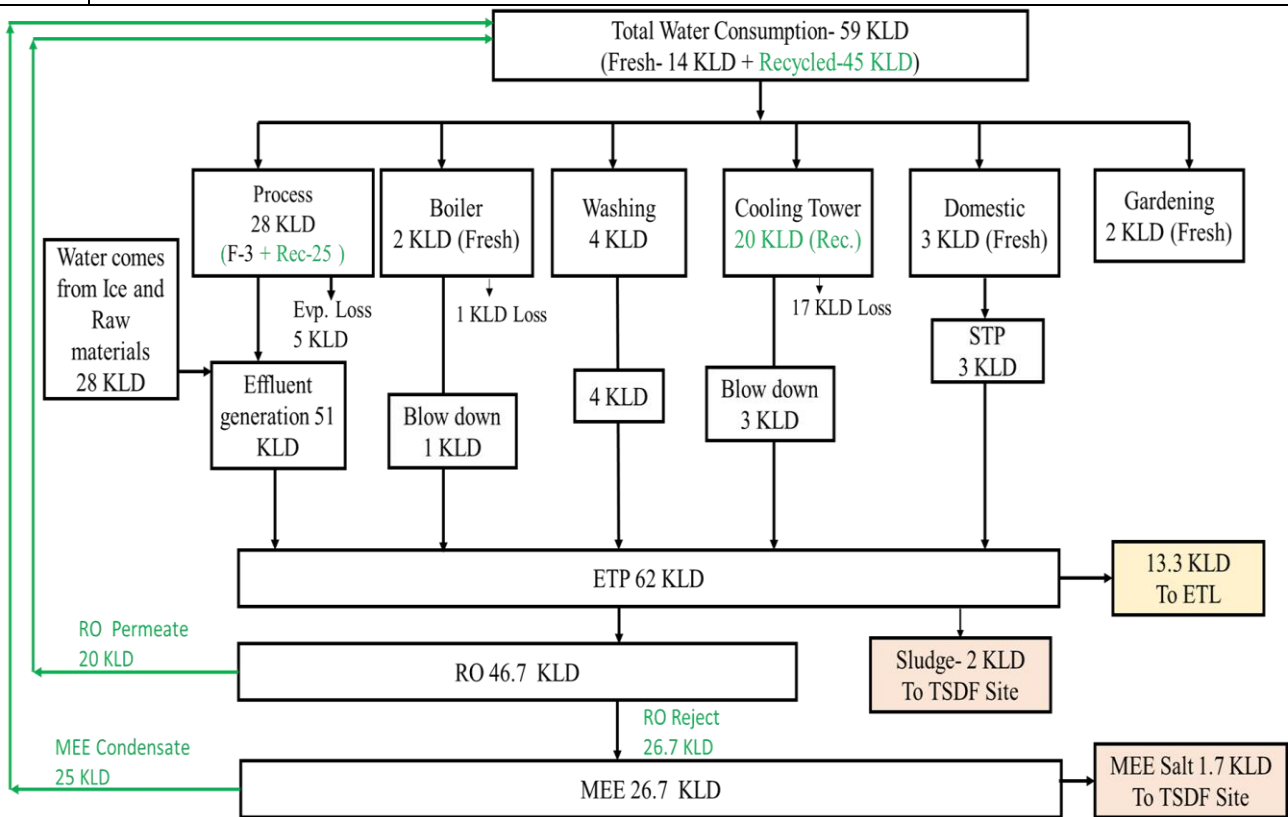
**Name of Common facility (CF) (For waste water treatment)**

- ETL

Membership of Common facility (CF) mentioning **total capacity, consented quantity, occupied capacity and spare capacity** and norms of acceptance of effluent from member units in-line with the direction given by GPCB vide Letter No. GPCB/P-1/8-G (5)/550706 dated 08/01/2020.

- Membership of Common Facility is attached as annexure in EIA.

**D-7** **Simplified water balance diagram with reuse / recycle of waste water (Existing and Proposed)**



\*46 KLD Boiler condensate and 640 KLD Cooling tower recirculation is also reuse in daily bases

**E** **AIR**

**E-1 Brief Note on fuel based Heat energy requirement and worst case scenario thereof:**

Considering the Calorific Value of the fuel and other parameters, requirement of the heat, we have proposed consumption of fuel in Kg/day.

**E-2 Flue gas emission details**

No. of Boilers/TFH/Furnaces/DG sets etc. with capacities viz. TPH, Kcal/hr, MT/hr, KVA etc.  
(In case of Project located within CPA/SPA , APCM shall be in line to the mechanism published in the MOEFCC's OM vide dated 31.10.2019)

**-Existing**

Sr. no.	Source of emission With Capacity	Stack Height (meter)	Type of Fuel	Quantity of Fuel MT/Day	Type of emissions i.e. Air Pollutants	Air Pollution Control Measures (APCM)
3	Boiler (500 KG)	11	Natural Gas	15 m3/hr	PM SO <sub>2</sub> NO <sub>x</sub>	Adequate stack height
4	Hot Air Generator (50,000 Kcal/Hr)	11			PM SO <sub>2</sub> NO <sub>x</sub>	

**-After Proposed Expansion**

Sr. no.	Source of emission With Capacity	Stack Height (meter)	Type of Fuel	Quantity of Fuel MT/Day	Type of emissions i.e. Air Pollutants	Air Pollution Control Measures (APCM)
1	Boiler (2 TPH)	20	Natural Gas	3360 m3/Day	PM SO <sub>2</sub> NO <sub>x</sub>	Adequate stack height
2.	Hot Air Generator (2,00,000 Kcal/Hr)	20	Natural Gas	600 m3/Day		
3.	D. G. Set (250 KVA)	11	Diesel	360 Lit/Day		Adequate stack height

Note: - After proposed expansion, unit will dismantle 500 KG/ Hr Boiler and 50,000 Kcal/Hr HAG and installed new 2 TPH Boiler and 2,00,000 Kcal/ Hr HAG.

**E-3 Process gas i.e. Type of pollutant gases (SO<sub>2</sub>, HCl, NH<sub>3</sub>, Cl<sub>2</sub>, NO<sub>x</sub> etc.)**

**Existing & Proposed**

**-Existing**

There is no process gas emission.

**- As per proposed Expansion**

There is no process gas emission.

**Note:**

- **Details of gaseous raw materials used in proposed project**
- **Estimation of process gas emission (Product wise and Total)**
- **Requirement of the scrubbing media (KL per Day) considering solubility (Product wise and Total)**
- **Yearly generation of all bleed liquors (MT/KL per Annum) as mentioned above and its sound management in HW matrix.**

**E-4** Fugitive emission details with its mitigation measures.

Sr. No.	Source	Probable Pollutant Emission	Control Measures/ APCM
1	Handling of raw material bags in storage area	Air pollutant (PM)	i) Provision of exhaust ventilation Provision of PPE. ii) Provision of Job rotation to reduce exposure.
2	Solid raw material transferring to reactor	Air pollutant (PM)	Hopper will be provided with powder transfer system.
3	Liquid raw material transferring to reactor	Air pollutant	Feeding of liquid raw material will be carried out by closed pipeline and mechanical seal pump.
4	Loading /unloading at storage area	Air pollutant	Unloading through pipeline to tank in a close system.

**F** **Hazardous waste**  
(As per the Hazardous and Other Wastes (Management and Transboundary Movement) Rules 2016.

**Note:**

- **Priorities for HW Management:** Pre-processing, Co-Processing, Reuse/Recycle within premises, Sell out to actual users having Rule-9 permission, TSDF/CHWIH.
- **Quantification of hazardous waste shall be based on mass balance and calculations shall be incorporated in EMP details separately.**
- **Disposal to scrap vendors/vendors/traders is not allowed**

**F-1** **Hazardous waste management matrix**

**Existing & Proposed**

-

Sr. no.	Type/Name of Hazardous waste	Specific Source of generation (Name of the Activity, Product etc.)	Category and Schedule as per HW Rules.	Quantity (MT/Annum)			Management of HW
				Existing	Proposed	Total	
1.	Empty barrels/containers/liners contaminate with hazardous chemicals/wastes	From Packing Material	33.1	3.00	27	30	Collection, storage, transportation & disposal by selling to GPCB authorized recycler
2.	Used or Spent oil	From Lubrication	5.1	0	4	4	Collection, storage, transportation & disposal by selling to GPCB authorized recycler/refiner.
3.	Spent Carbon	ETP	28.3	0	1	1	Collection, Storage & Disposal by sent it to Co-processing
4.	RO membrane	RO	35.2	0	2	2	Collection, storage within factory premises, transportation and Disposal at TSDF.
5.	ETP Sludge	From ETP	35.3	1.2	718.8	720	Collection, storage within factory premises, transportation and Disposal at TSDF.
	MEE salt	From MEE		0	612	612	

**F-2** Membership details of **TSDF, CHWIF** etc.  
**(For HW management)**

Details of Membership letter no. & Date with spare capacity of the Common Facility.  
BEIL Ankleshwar

**F-3** Details of Non-Hazardous waste & its disposal  
**(MSW and others)**

--

Sr. No.	Name of Non-Hazardous waste	Quantity MT/Annum	Handling/ Disposal
1	Wood Waste	2	Given to authorized scrap dealers
2	Glass Waste	1	Given to authorized scrap dealers
3	Paper waste	0.5	Given to authorized scrap dealers

**G** **Solvent management, VOC emissions** etc.

**G-1** Brief Note on types of solvents, Details of Solvent recovery, % recovery, reuse of recovered

	Solvents etc.													
*There is no any solvent use in manufacturing process														
<b>G-2</b>	<b>Brief Note on LDAR proposed:</b>													
Leak Detection and Repair (LDAR) is a program implemented to comply with environmental regulations for reducing the fugitive emissions of targeted chemicals into the environment. In addition to control fugitive emissions, LDAR Program also helps the industries to reduce unwanted losses of chemicals and thereby conserving energy & increasing their profitability.														
<b>G-3</b>	<b>VOC emission sources and its mitigation measures</b>													
➤ There is no source of VOC. Unit will not use solvent														
<b>H</b>	<b>SAFETY details</b>													
<b>H-1</b>	<b>Details regarding storage of Hazardous chemicals (For tank storages only including spent acid and spent solvent tanks)</b>													
-														
<table border="1"> <thead> <tr> <th>Sr. no</th> <th>Name of Chemical</th> <th>Capacity of Tank</th> <th>Number of Tanks</th> <th>Hazardous Characteristics of Chemical</th> </tr> </thead> <tbody> <tr> <td>1</td> <td colspan="4">There is no any solvent</td> </tr> </tbody> </table>					Sr. no	Name of Chemical	Capacity of Tank	Number of Tanks	Hazardous Characteristics of Chemical	1	There is no any solvent			
Sr. no	Name of Chemical	Capacity of Tank	Number of Tanks	Hazardous Characteristics of Chemical										
1	There is no any solvent													
<b><u>Brief note on storage of Hazardous chemicals in Tanks</u></b>														
➤ Not Applicable														
<b><u>Brief note on storage of Hazardous chemicals other than Tanks i.e. Drum, Barrels, Carboys, Bags etc.</u></b>														
➤ MOC of drum will be as per compatibility of chemical and drum materials. Unit will provide flame proof electrical fitting as and firefighting measures to eliminate fire as well as other hazard. Spillage kit will be available at require area.														
<b><u>Safety details of Hazardous Chemicals:</u></b>														
<b>Type of Hazardous Chemicals</b>		<b>Safety measures</b>												
<b>Acid</b>		Storage material will be as per compatibility class. Trained person will handle that.												
<b>Toxic</b>		Storage in compatible storage unit with safe distance with other chemicals, Only trained person allowed to handle												



➤ **Applicability of PESO : Not applicable**

**H-2**      **Types of hazardous Processes involved and its safety measures:**  
**(Hydrogenation process, Nitration process, Chlorination process, Exothermic Reaction etc.)**

-      **There will be no any hazardous processes involved.**

Type of Process	Safety measures including Automation
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**H-3**      **Details of Fire Load Calculation**

Total Plot Area:	1607.97
Area utilized for plant activity:	867.90
Area utilized for Hazardous Chemicals Storage:	100
Number of Floors:	G+2
Water requirement for firefighting in KLD :	4.3 KL
Water storage tank provided for firefighting in KLD:	200 KL
Details of Hydrant Pumps:	Main Pump cap: 70 HP Jockey pump cap: 65 HP DG Pump cap: 80 HP
Nearest Fire Station :	DPMC Ankleshwar- 3.35 Km
Applicability of Off Site Emergency Plan:	N.A

**H-4**      **Details of Fire NOC/Certificate:**

Unit will apply for Fire NOC after proposed expansion.

**H-5**      **Details of Occupational Health Centre (OHC):**

Number of permanent Employee :	10 Nos.
Number of Contractual person/Labour :	6Nos.
Area provided for OHC:	--
Number of First Aid Boxes :	2 Nos.
Nearest General Hospital :	3.47 KM
Name of Antidotes to be store in plant :	Folinic acid (Leucovorin), B nzocaine (Novocaine) solution for eye,

- During meeting, Committee noted that PP presented prescribed format for B1 project in place of B2 project along with mentioning existing production plant. PP presented that unit was established based on NOC/CCA in 1990 (before EIA notification 2006). After that EC was granted in 2007, but due to moratorium guideline of critical zone for period unit was not able to convert in to CCA. Also, validity of EC is for 7 years. Validity of granted EC was completed in moratorium period, thus unit have to again apply for EC expansion and readdress ToR no-1. PP presented production details from year 2007 to 2021 and revised GIDC Notified area letter with mentioning for area provided for green belt area for PP is not allocated to another industry in future and details of how many trees planted in Proposed green belt area, along with Longitude and Latitude of proposed greenbelt area and its maintenance responsibility for green belt development. PP submitted baseline data along with incremental in GLC and each and every specific ToR compliance in tabular form.
- Committee found reply submitted by PP were satisfactory.
- **After detailed discussion, Committee unanimously decided to recommend the project to SEIAA, Gujarat for grant of Environment Clearance with the following specific condition:**

**SPECIFIC CONDITIONS:**

1. Project proponent (PP) shall install CEMS [**Continuous Emission Monitoring System**] in line to CPCB directions to all SPCB vide letter no. B-29016/04/06PCI-1/5401 dated 05/02/2014 for effluent discharge and air emission as per pollutants discharge/emission from respective project and an arrangement shall also be done for reflecting the online monitoring results on the company's server, which can be assessable by the GPCB/CPCB on real time basis. [**For Small/Large/Medium (Red Category) & Whichever (Air emission & Effluent discharge) is applicable**].
2. Leak Detection and Repair (LDAR) program shall be prepared and implemented as per the CPCB guidelines. LDAR Logbooks shall be maintained.
3. The National Ambient Air Quality Emission Standards issued by the Ministry vide G. S. R. No. 826 (E) dated 16th November, 2009 shall be complied with.
4. National Emission Standards for Organic Chemicals Manufacturing Industry issued by the Ministry vide G. S. R. 608 (E) dated 21/07/2010 and amended from time to time shall be followed.
5. Unit shall have to adhere to the prevailing area specific policies of GPCB with respect to the discharge of pollutants, and shall carry out the project development in accordance & consistence with the same.
6. The project proponent must strictly adhere to the stipulations made by the Gujarat Pollution Control Board, State Government and/or any other statutory authority.
7. All measures shall be taken to avoid soil and ground water contamination within premises.
8. GPCB shall ensure compliance of direction under section 18 (1) (b) of the Water (Prevention and Control of Pollution) act, 1974 issued by CPCB regarding compliance of CETP and also that the pollution load is

not increased in the CPA/SPA for the compliance of Hon'ble NGT order.

## **WATER**

9. Total water requirement for the project shall not exceed 59 KLD. Unit shall reuse 45 KLD of treated industrial effluent within premises. Hence, fresh water requirement shall not exceed 14 KLD and it shall be met through GIDC supply only. Prior permission from concerned authority shall be obtained for withdrawal of water.
10. The industrial effluent generation from the project shall not exceed 59 KLD after expansion.
  - Total Industrial effluent shall be treated in ETP and then 13.3 KLD, treated effluent shall be sent to CETP of M/s ETL for further treatment and disposal and remaining 46.70 KLD, treated effluent shall be treated in RO plant. 20 KLD, RO permeate shall be reused back in process while 26.70 KLD RO reject shall be evaporated in in-house MEE. 25 KLD,RO permeate shall be reused back in process within plant.
11. Unit shall discharge wastewater to CETP of ETL only after complying with inlet norms prescribed by GPCB and ensuring content of effluent for COD/VOC so as not to get air borne during evaporation in order to achieve no adverse impacts on Environment and Human Health.
12. Domestic wastewater generation shall not exceed 3 KL/day for proposed project and it shall be treated in ETP. It shall not be disposed off through soak pit/ septic tank.

## **AIR**

13. Unit shall not exceed fuel consumption and provide APCM and Stack height as mentioned in flue gas matrix.
14. Unit shall provide APCM and stack height as mentioned in process gas matrix.
15. PP shall use approved fuels only as fuel in boilers.

## **HAZARDOUS & SOLID WASTE**

1. All hazardous solid waste shall be managed as mentioned in hazardous waste matrix.
2. The unit shall submit the list of authorized end users of hazardous wastes along with MoU signed with them at least two months in advance prior to the commencement of production. In the absence of potential buyers of these items, the unit shall restrict the production of the respective items.

## **GREENBELT AREA**

3. The PP shall develop green belt within premises (443 Sq m within premises and 95 sq. Meter outside premises i.e.538 sq. Meter >33 % of the total plot area) as per the undertaking submitted before SEAC. Green belt shall be developed with native plant species that are significant and used for the pollution abatement as per the CPCB guidelines. It shall be implemented within 3 years of operation phase in consultation with GPCB.

## 9. Safety & Health:

- a) PP shall obtain PESO permission for the storage and handling of hazardous chemicals.
- b) PP shall provide Occupational Health Centre (OHC) as per the provisions under the Gujarat Factories Rule 68-U.
- c) PP shall obtain fire safety certificate / Fire No-Objection certificate (NOC) from the concerned authority as per the prevailing Rules / Gujarat Fire Prevention and Life Safety Measures Act, 2016.
- d) Unit shall adopt functional operations/process automation system including emergency response to eliminate risk associated with the hazardous processes.
- e) PP shall carry out mock drill within the premises as per the prevailing guidelines of safety and display proper evacuation plan in the manufacturing area in case of any emergency or accident.
- f) PP shall install adequate fire hydrant system with foam trolley attachment within premises and separate storage of water for the same shall be ensured by PP.
- g) PP shall take all the necessary steps for control of storage hazards within premises ensuring incompatibility of storage raw material and ensure the storage keeping safe distance as per the prevailing guidelines of the concerned authority.
- h) PP shall take all the necessary steps for human safety within premises to ensure that no any harm is caused to any worker/employee or labour within premises.
- i) Flame proof electrical fittings shall be provided in the plant premises, wherever applicable.

5	SIA/GJ/IND2/177089/2020	<b>M/s. Remission Pharma Care Pvt. Ltd.</b> Plot No. 2, Umiya Indu. Estate, Indrad, Ta-Kadi, Dist - Mehsana	EC-Reconsideration
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Category of the unit: **5(f)**

### **Project status: New**

- Project proponent (PP) submitted online application vide no. SIA/GJ/IND2/177089/2020 on dated 04.11.2020 for obtaining Environmental Clearance.
- Project proponent has submitted Form – 1, Pre-Feasibility Report & Environment Management Plan as per Notification issued by MoEF&CC vide S.O. 1223(E) dated 27th March, 2020 regarding consideration of proposals or activities in respect of Active Pharmaceuticals Ingredients (API) as B2 category.
- This is a new project proposed for manufacturing of synthetic organic chemicals [**API & its Intermediates**] as tabulated below:

SR. NO	PRODUCT NAME	CAS No.	Proposed MT/Month	End use of the Product
1.	Amisulpride	71675-85-9	5	Amisulpride is an atypical anti-psychotic medicine that is used to treat symptoms like hallucinations, delusions, thought disturbances,

				lack of interest, apathy .
2.	Doxepin Hydrochloride	1229-29-4	1	It is used in the treatment of depression and anxiety
3.	Dothiepin(Dosulepine) Hydrochloride	897-15-4		It is used in the treatment of depression
4.	Silodosin	160970-54-7		It is used in men to treat the symptoms of an enlarged prostate
5.	Artemether	71963-77-4		It is an antimalarial agent used to treat acute uncomplicated malaria
6.	Adapalene	106685-40-9		It is used to treat acne.
7.	Levosulpiride	23672-07-3		5
8.	Benfotiamine	22457-89-2	It is used to treat nerve damage caused by diabetes	
9.	Amitriptyline Hydrochloride	549-18-8	It is treated mental/mood problems such as depression	
10.	Erythromycin Stearate	643-22-1	It is used to treat a wide variety of bacterial infections	
11.	Erythromycin Estolate	3521-62-8	It is used to treat infections	
12.	Clotrimazole	23593-75-1	55	It is an antifungal medicine
13.	Lumefantrine	82186-77-4		It is used to treat malaria.
14.	Telmisartan	144701-48-4		It is used to treat high blood pressure (hypertension)
15.	Terbinafine Hydrochloride	91161-71-6		It is used to treat infections caused by a fungus
Total			16 MT/Month	-

**Product Profile:**

1. No of Manufacturing Plants: 1 no.s
2. Brief Note regarding number of Products to be manufactured considering plant capacity: 2 Products

**Specific End-use of each proposed products:**

Sr. No.	Name of the Product	CAS No. (Product)	Type/ Category of Product (API/ Intermediate)	In case of Intermediate stage of API			Said API is used for/End Use of said API
				Stage i.e. n-1, n-2, etc.	Name of API in which Intermediate Used/ End use of said Intermediate	CAS no. (API)	
1	Amisulpride	71675-85-9	API	-	-	-	Amisulpride is an atypical anti-psychotic medicine that is used to treat symptoms like hallucinations, delusions, thought disturbances,

							lack of interest, apathy .
2	Doxepin Hydrochloride	1229-29-4	API	-	-	-	It is used in the treatment of <b>depression</b> and <b>anxiety</b>
3	Dothiepin(Dosulepine) Hydrochloride	897-15-4	API	-	-	-	It is used in the treatment of <b>depression</b>
4	Sildenafil	160970-54-7	API	-	-	-	It is used in men to treat the symptoms of an <b>enlarged prostate</b>
5	Artemether	71963-77-4	API	-	-	-	It is an antimalarial agent used to treat acute uncomplicated <b>malaria</b>
6	Adapalene	106685-40-9	API	-	-	-	It is used to treat <b>acne</b> .
7	Levosulpiride	23672-07-3	API	-	-	-	It is used in the treatment of Gastroesophagealreflux disease
8	Benfotiamine	22457-89-2	API	-	-	-	It is used to treat nerve damage caused by <b>diabetes</b>
9	Amitriptyline Hydrochloride	549-18-8	API	-	-	-	It is treated mental/mood problems such as <b>depression</b>
10	Erythromycin Stearate	643-22-1	API	-	-	-	It is used to treat a wide variety of bacterial <b>infections</b>
11	Erythromycin Estolate	3521-62-8	API	-	-	-	It is used to treat infections
12	Clotrimazole	23593-75-1	API	-	-	-	It is an antifungal medicine
13	Lumefantrine	82186-77-4	API	-	-	-	It is used to treat <b>malaria</b> .
14	Telmisartan	144701-48-4	API	-	-	-	It is used to treat <b>high blood pressure (hypertension)</b>

15	Terbinafine Hydrochloride	91161-71-6	API	-	-	-	It is used to treat infections caused by a fungus
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- The project falls under Category B2 of project activity 5(f) as per the schedule of EIA Notification 2006 and amendment dated 27th March, 2020.
- PP submitted an undertaking ensuring proposed product profile is in line with MoEF&CC's Notification vide S.O. 1223 (E) dated 27/03/2020 in respect of Active Pharmaceutical Ingredients (API) as category B2 projects. Undertaking as proposal of said product are eligible to consider under B2 category as per the notification of MoEF&CC dated 27.03.2020
- The proposal was considered in the SEAC video conference meeting dated 01.02.2021
- During the meeting dated 01.02.2021, the project was appraised based on the information furnished in Form – 1, Pre-Feasibility Report, Environment Management Plan and details submitted by e-mail.
- Project proponent (PP) and their Technical Expert from M/s. B S Rana remain present during video conference meeting.
- Committee noted that this is a new project proposed for manufacturing of Synthetic organic chemicals [API and Its Intermediates] plant at Plot No. 2, Umiya Industrial Estate, Village Indrad, District- Mehsana. Total plot area is 2279 Sq m.
- PP submitted that nearest residential area of Village is Indrad @ 2.52 Km and there is no water bodies, natural drain, National monuments within 500 m radius from the project boundary. There are no Eco sensitive zones, wild life sanctuaries within the 10 km area and no water bodies, natural drain, national monuments, etc. within 500 m radius from the boundary of the project site.
- Since, the unit falls in B2 category as per the MoEF&CC's amended EIA Notification vide S.O. 1223(E) dated 27.03.2020, the public consultation is not applicable as per paragraph 7(i) III (i) (e) of the Environment Impact Assessment Notification-2006.
- Committee deliberated on siting criteria, Product profile and its specific end-uses, Layout plan, Storage details, Process safety, Fire safety, water balance & waste water management, Flue gas and process gas emission & Air Pollution Control System, Hazardous waste matrix, EMP, CER, Green belt etc.
- Committee noted the following:
  - ✓ NA documents in the name of Shri Jashavantbhai Becharbhai Patel mentioning purpose of NA as multi-purpose. Land possession documents of the unit.
  - ✓ Source of water is borewell and will apply for CGWA permission.
  - ✓ At a time three products can be manufactured.
  - ✓ Stream wise segregation of waste water is proposed for better management.
  - ✓ Generated industrial effluent will be treated in Primary ETP followed by RO. RO permeate will be reused within premises and RO reject will be sent to common spray dryer.
  - ✓ Domestic wastewater will be treated in STP and reused for gardening/ plantation.

- ✓ Natural gas or agro waste is proposed as fuel for Boiler and thermopack.
- ✓ There will be no process gas emission.
- ✓ PP submitted hazardous waste matrix mentioning source of generation, quantity and Mode of disposal and committed to comply the Hazardous and Other Wastes (Management and Transboundary Movement) Rules 2016.
- Committee asked (1) Revised Site Plan/ layout with provision 33% greenbelt within premises and fire hydrant system in ETP and Hazardous waste storage area, (2) copy of application of CGWA permission for withdrawal of water, (3) revised fire load calculation mentioning adequate fire water reservoir, foam trolley type fire extinguishers, fire proximity suits, etc. and (4) Membership of common spray dryer having valid CCA and mentioning total capacity, consented quantity, occupied capacity and spare capacity.
- **After deliberation, SEAC unanimously decided to consider the proposal in one of the upcoming meeting of SEAC after submission of following details:**
  1. Revised Site Plan/ layout with provision 33% greenbelt within premises and fire hydrant system in ETP and Hazardous waste storage area.
  2. Copy of application of CGWA permission for withdrawal of water.
  3. Revised fire load calculation mentioning adequate fire water reservoir, foam trolley type fire extinguishers, fire proximity suits, etc.
  4. Membership of common spray dryer having valid CCA and mentioning total capacity, consented quantity, occupied capacity and spare capacity.
- PP submitted the reply of the said points along with other supporting documents
- This proposal is reconsidered in SEAC meeting dated 05.04.2021. PP along with their technical expert/consultant from M/s B S Rana remains present in the meeting and made presentation before committee.
- PP presented revised salient features of the project including Water, Air and Hazardous waste management are as under:
- During meeting dated: 01.04.2021, PP presented revised Site Plan/ layout with provision of separate entry & exit, 6 m peripheral road for emergency exit, ETP & STP, utility, Plant area, raw material & finished goods storage areas, OHC (25 Sq m). Also presented land area break-up for each components.
- Committee noted the following details:
  - ✓ Copy of application of CGWA for withdrawal of water.
  - ✓ Revised fire load calculation with provision of fire water storage (Cap: 120 KL) and 3 Nos of foam type extinguishers (Cap: 5 Kgs).
  - ✓ PP presented that they are having membership of M/s Umiya Enviro Project LLP which is not having CCA. Also, PP further informed that M/s Umiya Enviro Project LLP will commission in June-2021 and their plant will be commissioned in March-2022.
- Committee insisted (1) to provide adequate fire water storage and foam trolley looking to the location of the site, storage of hazardous chemicals and plot size and (2) Membership of common facilities having valid CCA



of GPCB and mentioning capacities as per GPCB circular dated: 08.01.2020. .

• **After deliberation, SEAC unanimously decided to consider the proposal in one of the upcoming meeting of SEAC after submission of following details:**

1. Revised fire load calculation mentioning adequate fire water storage and foam trolley type extinguishers looking to the location of the site, storage of hazardous chemicals and plot size.
2. Membership of common facilities having valid CCA of GPCB and mentioning capacities as per GPCB circular dated: 08.01.2020.

- PP submitted the reply of the said points along with other supporting documents
- This proposal is reconsidered in SEAC meeting dated **05.08.2021**. PP along with their technical expert/consultant from M/s B S Rana remains present in the meeting and made presentation before committee.
- PP presented revised salient features of the project including Water, Air and Hazardous waste management are as under:

Sr. no.	Particulars	Details																												
A-1	<p>Total cost of Proposed Project (Rs. in Crores):</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td>Total Project</td> </tr> <tr> <td>3.5 Crores</td> </tr> </table> <p>Break-up of proposed project Cost:</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Sr. No.</th> <th>Cost of project</th> <th>Cost in Rs Cr. Proposed</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Land &amp; building</td> <td>1.6</td> </tr> <tr> <td>2</td> <td>Plant &amp; Machinery</td> <td>0.9</td> </tr> <tr> <td>3</td> <td>EMP</td> <td>0.35</td> </tr> <tr> <td>4</td> <td>Other</td> <td>0.68</td> </tr> <tr> <td></td> <td><b>Total</b></td> <td><b>3.5</b></td> </tr> </tbody> </table>	Total Project	3.5 Crores	Sr. No.	Cost of project	Cost in Rs Cr. Proposed	1	Land & building	1.6	2	Plant & Machinery	0.9	3	EMP	0.35	4	Other	0.68		<b>Total</b>	<b>3.5</b>									
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3	Noise Pollution Control	Machinery	0.01	0.004	0.001	0.005																								

4	Hazardous waste Management	MEM and Disposal	0.02	0.005	0.005	0.010
5	Environment Monitoring and Management	Laboratory	0.02	0.003	0.002	0.005
6	Rain Water Harvesting	Percolation well	0.04	0.005	0.005	0.010
7	Occupational Health & Safety	Medical Checkup	0.03	0.005	0.005	0.010
8	Green Belt	Plant	0.02	0.005	0.005	0.010
Total			0.35	0.097	0.053	0.150

Summary

Cost of Project in Crores per Annum:	3.5 Cr
EMP Capital Cost in Crores per Annum and Percentage:	0.35 Cr (10 %)
EMP Recurring Cost in Crores per Annum and Percentage:	0.15 Cr (4.28%)

A-3

Details of CER as per OM dated 01/05/2018(In case of project falls under CPA/SPA, CER fund allocation to be at least 1.5 times the slabs given in the OM dated 01.05.2018 for SPA and 2 times for CPA in case of Environmental Clearance as per the mechanism published vide MoEF&CC's OM vide 31.10.2019.)

% as per the OM	Rs. in Crores
2 %	0.070

Brief note on proposed activities:

S. No.	Planned activities under CER as per specific needs at nearest villages	Budget (Rs. Lakhs)					Total
		1 <sup>st</sup> year (20-21)	2 <sup>nd</sup> year (21-22)	3 <sup>rd</sup> year (22-23)	4 <sup>th</sup> year (23-24)	5 <sup>th</sup> Year (23-24)	
Indrad&Bileswarpura							
1	Solar Panels (10 Nos)	0.3	0.3	0.2	0.1	0.1	1.0
Indrad&Karannagar							
2	Conduct medical camp	0.5	0.3	0.3	0.2	0.2	1.5
Dhanot/Chadasana/Indrad							
3	Infrastructure development/ Up-						

	gradation of existing structure like, toilet facility.	0.5	0.5	0.5	0.25	0.25	2.0						
Dhanot, Ambavpura													
4	Community Plantation	0.25	0.25	0.20	0.20	0.10	1.0						
Indrad/Dhanot													
5	Training and awareness programmed and Skill Development in school on Environment day and Safety Day	0.5	0.3	0.3	0.2	0.2	1.5						
Total							7.0						
B	Land / Plot ownership details: Land ownership document enclosed in the Annexure-XIII.												
B-1	Plot area												
	<table border="1"> <tr> <td style="text-align: center;">Total Plot area</td> </tr> <tr> <td style="text-align: center;">2279 Sq. m.</td> </tr> </table>							Total Plot area	2279 Sq. m.				
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B-2	Brief note on Area adequacy in line to proposed project activities: Considering the 16 MT per month of production rate and having plot area is 2279sqm it is justify.												
B-3	Green belt area												
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D	WATER												
D-1	Source of Water Supply (GIDC, Bore well, Surface water, Tanker supply etc...) Estate Supply.												
	Status of permission from the concern authority. ➤ Industrial Estate.												
D-2	Water consumption (KLD)												
	<table border="1"> <tr> <td style="width: 50%;"></td> <td style="text-align: center;">Quantity KLD</td> <td style="text-align: center;">Remarks</td> </tr> </table>								Quantity KLD	Remarks			
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			Category																	
			(D) Domestic	1.0	1.0 KLD Fresh															
			(E) Gardening	2.0	1.2KLD Fresh +0.8 KLD Recycled															
			(F) Industrial																	
			Process	2.1	2.1 KLD Fresh															
			Washing	1.5	0.3 KLD Fresh + 1.2 Recycle RO permeate															
			Boiler	2.0	2.0 KLD Fresh															
			Cooling	3.0	3.0 KLD Recycle RO permeate															
			Scrubbing	0.0	-															
			Others	0.0	-															
			Industrial Total	8.6	4.4 KLD Fresh + 4.2 KLD Recycle RO permeate															
			Grand Total (A+B+C)	11.6	6.6 KLD Fresh + 4.2 KLD Recycle RO permeate															
			Brief Note on worst case scenario for water consumption:																	
			➤ The water consumption is calculated on worst case scenario.																	
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			RO Permeate	Cooling	O & G - 0mg/l	3.0 KLD Recycled Use as make of evaporation loss Not effected products																													
		<p>In case of no reuse/recycle of waste water, Give brief note on justification as why no reuse/recycle.</p> <p>➤ There shall be reuse of treated effluent (RO Permeate).</p>																																	
D-3	Waste water generation (KLD)																																		
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	<p>Brief Note on worst case scenario for waste water generation(Qualitative and Quantitative):</p> <p>➤ The water table is considering the worst case scenario we will be minimize the waste water generation by doing cleaner production activity.</p>																																		
	<p>Brief justification in case of no process effluent generation or no industrial effluent generation or no high concentration effluent generation from proposed project (Whichever is applicable).</p> <p>➤</p>																																		
D-4	Mode of Disposal & Final meeting point																																		
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D-5	Treatment facilities																																		
	<p>For Domestic waste water:</p> <p>Capacity of STP: 1 KLD</p>																																		
	<p>For Industrial waste water: Treatment facility within premises with capacity</p>																																		

[In-house ETP (Primary, Secondary, Tertiary), MEE, Stripper, Spray Dryer, STP etc.

Treatment scheme including segregation at source. (Give Characteristics of each stream i.e. COD, BOD, TDS etc.) In case of stream segregation, Separate ETP (ETP-1, ETP-2....) for each stream shall be proposed.

➤ ETP (Primary Treatment)

Type of Treatment: Primary & Tertiary

Capacity of the ETP: 6 KLD

Flow to the ETP: 5.2 KLD

Characteristics of each stream:

Details	Process	Cooling	Boiler	Washing
Flow KL/day	3.2	0.3	0.2	1.5
pH	6	7-8	9-10	7-8
TDS mg/l	2500	3000	2500	1500
SS mg/l	210	30	20	120
COD mg/l	2400	40	20	400
BOD mg/l	450	6	3	27
Oil & Grease mg/l	0	<1	0	<1

Details	Inlet of ETP	Outlet of ETP	RO Permeate	RO Rejected
Flow KL/day	5.2	5.1	4.1	1.0
pH	6.0	7.5	8.0	7.2
TDS mg/l	2240	2100	240	9726
SS mg/l	166	36	8	151
COD mg/l	1595	790	90	3660
BOD mg/l	285	150	18	691
Oil & Grease mg/l	<1	0	0	0

Note: (In case of CETP discharge) :

Management of waste water keeping in view direction under section 18 (1) (b) of the Water (Prevention and Control of Pollution) act, 1974 issued by CPCB regarding compliance of CETP.

➤ NA

Brief note on adequacy of ZLD (In case of Zero Liquid Discharge):

➤ NA

D-6	<p>In case of Common facility (CF) i.e. CETP, Common Spray dryer, Common MEE, CHWIF etc. Name of Common facility (CF) (For waste water treatment)</p> <p>➤ Common Spray Drying Facility membership of Umiya Enviro Project LLP is taken.</p> <p>Membership of Common facility (CF) mentioning total capacity, consented quantity, occupied capacity and spare capacity and norms of acceptance of effluent from member units in-line with the direction given by GPCB vide Letter No. GPCB/P-1/8-G (5)/550706 dated 08/01/2020.</p> <p>➤ Common Spray Drying Facility membership of Umiya Enviro Project LLP is taken. Common spray drying facility is a newly started booking and having GPCB CTE.</p>
D-7	<p>Simplified water balance diagram with reuse / recycle of waste water</p> <p style="text-align: center;"><b>WATER BALANCE</b></p> <p style="text-align: center;">All figures are in KLD</p>
E	AIR
E-1	Brief Note on fuel based Heat energy requirement and worst case scenario thereof:
a.	<p>Drying of powder: 100 °C to 150 °C for five hours</p> <p>b. Distillation of Solvent: 70 °C to 100 °C for six hours</p> <p>c. Evaporator (ETP) : 100 °C to 150 °C for four-five hours</p> <p>Energy required: 2000 KCal/day</p> <p>Fuel Energy generation: 2860 Kcal/day (100 % efficiency)</p> <p>: 2000 Kcal/day (70 % efficiency)</p>
E-2	<p>Flue gas emission details</p> <p>No. of Boilers/TFH/Furnaces/DG sets etc. with capacities viz. TPH, Kcal/hr, MT/hr, KVA etc.</p>

(In case of Project located within CPA/SPA , APCM shall be in line to the mechanism published in the MOEFCC's OM vide dated 31.10.2019)

Sr. No.	Stack Attached to	Stack Height (m)	Fuel Used	Quantity of Fuel	APCM	Pollutants
1	Boiler (0.5 TPH)	12	Natural Gas	140 SCM/hr.	Dust Collector	Particulate Matter (150mg/Nm <sup>3</sup> ) SO <sub>x</sub> (100ppm) NO <sub>x</sub> (50ppm)
2	Thermopack (3 Lac. Kcal)	30	Natural Gas	35 SCM/hr		
3	DG Set (125KV)	15	LDO / Diesel	50 Lit /Hr	Adequate stack height	

E-3 Process gas i.e. Type of pollutant gases (SO<sub>2</sub>, HCl, NH<sub>3</sub>, Cl<sub>2</sub>, NO<sub>x</sub> etc.)

There is no process gas emission from manufacturing process.

Note:

- Details of gaseous raw materials used in proposed project :NA
- Estimation of process gas emission (Product wise and Total):NA
- Requirement of the scrubbing media (KL per Day) considering solubility (Product wise and Total): NA
- Yearly generation of all bleed liquors (MT/KL per Annum) as mentioned above and its sound management in HW matrix :NA

E-4 Fugitive emission details with its mitigation measures.

Followings Measures will take for controlling during operation of proposed project.

Maintaining the house keeping regularly

Transferring the liquid materials by pump

To carry out regular leak detection and repair activities

- Proper routine maintenance of equipment reduces the likelihood of leaks

F Hazardous waste

(As per the Hazardous and Other Wastes (Management and Transboundary Movement) Rules 2016.

Note:

- Priorities for HW Management: Pre-processing, Co-Processing, Reuse/Recycle within premises, Sell out to actual users having Rule-9 permission, TSDF/CHWIH.
- Quantification of hazardous waste shall be based on mass balance and calculations shall be incorporated in EMP details separately.
- Disposal to scrap vendors/vendors/traders is not allowed

F-1 Hazardous waste management matrix



## ETP Waste:

Sr. No.	Types of Waste	Source	Hazardous Waste Category	Quantity (MT / Year)	Mode of Disposal
1	ETP Sludge	ETP	35.3	15.0 MT/Year	Collection, storage, Transportation and Dispose to Active TSDF Site
2	Process Organic Sludge	Process	28.1	25.0 MT/Year	Collection, Storage, Transportation and Dispose to CHWIF
3	Spent Solvent (Recycling in next batch)	Process	28.6	1620 MT/Year	Collection, Storage, and recycling in next batch
4	Spent Solvent (Sold to having Rule 9 permission)	Process	28.6	5 MT/Year	Collection, Storage, Transportation and Sold to the actual user having Rule 9 permission.
5	Distillate Residue	Process	20.3	25 MT/Year	Collection, Storage, Transportation and Dispose to CHWIF
6	Used Oil	Machinery	5.1	0.010 MT/Year	Collection, storage, Reuse within premises.
7	Discarded Container/ Bags	Raw material	33.1	6.0 MT/Year	Collection, storage, Transportation and Dispose to Registered Recycler
8	Spent Carbon	Process	28.3	5 MT/Year	Collection, storage, Transportation and Dispose to CHWIF

F-2

Membership details of TSDF, CHWIF etc.

	(For HW management)																																																						
Details of Membership letter no. & Date with spare capacity of the Common Facility. We will be obtained Membership of TSDF site at SEPPL, Kutch site or any Active Site																																																							
F-3	Details of Non-Hazardous waste & its disposal (MSW and others)				Non Hazardous recycling waste will be sold to the registered recycler.																																																		
	Sr. no.	Type/Name of Other wastes	Specific Source of generation (Name of the Activity, Product etc.)	Quantity (MT/Annum)	Management of Wastes																																																		
	1	MSW	STP & OWC	2.0 MT/Month	Used as manure for green belt development or sold to actual users.																																																		
G	Solvent management, VOC emissions etc.																																																						
G-1	Brief Note on types of solvents, Details of Solvent recovery, % recovery, reuse of recovered Solvents etc.																																																						
	<table border="1"> <thead> <tr> <th>Solvent</th> <th>Requirement T/Month</th> <th>Fresh Use T/month</th> <th>Recycle Use T/month</th> <th>% Recovery</th> </tr> </thead> <tbody> <tr> <td>Acetone</td> <td>57.1</td> <td>3.0</td> <td>54.1</td> <td>94.75</td> </tr> <tr> <td>Toluene</td> <td>46.4</td> <td>6.0</td> <td>40.4</td> <td>87.07</td> </tr> <tr> <td>Butanol</td> <td>17.817</td> <td>1.74</td> <td>16.071</td> <td>90.20</td> </tr> <tr> <td>Ethyl Acetate</td> <td>35.546</td> <td>2.364</td> <td>33.182</td> <td>93.35</td> </tr> <tr> <td>Hexane</td> <td>0.909</td> <td>0.036</td> <td>0.873</td> <td>96.04</td> </tr> <tr> <td>Methanol</td> <td>18.182</td> <td>0.732</td> <td>17.45</td> <td>95.97</td> </tr> <tr> <td>ChloroBenzald ehyde</td> <td>0.909</td> <td>0.8217</td> <td>0.0873</td> <td>96.04</td> </tr> <tr> <td>Dioxane</td> <td>35.455</td> <td>1.365</td> <td>34.090</td> <td>96.15</td> </tr> <tr> <td>Total</td> <td>212.318</td> <td>15.279</td> <td>197.039</td> <td></td> </tr> </tbody> </table>					Solvent	Requirement T/Month	Fresh Use T/month	Recycle Use T/month	% Recovery	Acetone	57.1	3.0	54.1	94.75	Toluene	46.4	6.0	40.4	87.07	Butanol	17.817	1.74	16.071	90.20	Ethyl Acetate	35.546	2.364	33.182	93.35	Hexane	0.909	0.036	0.873	96.04	Methanol	18.182	0.732	17.45	95.97	ChloroBenzald ehyde	0.909	0.8217	0.0873	96.04	Dioxane	35.455	1.365	34.090	96.15	Total	212.318	15.279	197.039	
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G-2	Brief Note on LDAR proposed:																																																						
<p>LDAR Program</p> <ul style="list-style-type: none"> <li>Solvent losses monitoring</li> <li>In warding, storage and consumption of solvents in various products shall be measured through Level Transmitters and Load cells weighing systems resp. The quantity at each stage shall be reconciled periodically to arrive at Losses.</li> <li>Batch outputs shall be monitored and reconciled with quantity of input raw materials added. Any variation beyond 5% shall be analysed in detail and action plan shall be prepared to reduce the variation.</li> <li>Workplace VOC monitoring through handheld VOC meter (photo ionization detection</li> </ul>																																																							

(PID) sensor technology) shall be carried out at the shop floor.

- Periodic Leakage Audit at Plant and PDCA approach to be followed for control of leakages & Preventive Maintenance .
- In order to prevent leakage from Pump, Seals, Valves etc, preventive maintenance shall be carried out periodically as per plan. In case of any recurring problem, action plan shall be prepared or frequency shall be revised. & Immediate Corrections in case of Leakages.
- Plant shall have an internal competent team of Technicians and Engineers to handle different types of leakages round the clock.
- Plant shall also maintain adequate number of spares and consumables required to repair the leaking device.
- Plant shall also have competent contractor team to handle Leakages and can repair the same immediately. Standby equipment like Pumps, valves etc shall be kept basis the criticality and usage. Plant shall also have access equipment like Boom lift to handle leakages at height immediately

G-3 VOC emission sources and its mitigation measures

- VOC will be observing due to the use of solvent. To minimize the VOC level below the CPCB norms we will be taken action as follows.
- Pump and pipes will be provided for transferring of solvent.
- Raw materials will be kept in closed container.
- Regular monitoring of the storage container and transferring system.

H SAFETY details

H-1 Details regarding storage of Hazardous chemicals  
(For tank storages only including spent acid and spent solvent tanks)

- All liquid raw materials are storage in drums of carboys.

There shall no Storage tank proposed in premises.

Sr.no	Name of Chemical	Capacity of Tank	Number of Tanks	Hazardous Characteristics of Chemical
1	NA	NA	NA	NA

Brief note on storage of Hazardous chemicals in Tanks

- All liquid raw materials are storage in drums of carboys.

Brief note on storage of Hazardous chemicals other than Tanks i.e. Drum, Barrels, Carboys, Bags etc.

Storage details	Name of major Hazardous chemicals	Remarks
Barrel storage	All liquid raw Materials	10 barrel x 200 Lit

PP Bags	All solid raw materials	160 kg bags x 50 kg
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Safety details of Hazardous Chemicals:

Type of Hazardous Chemicals	Safety measures
Solvent	Isolated Storage Area, Closed Auto pump for transferring, Assembling Point, PPEs, Fire Hydrant System, occupational Health room is proposed.

➤ Applicability of PESO :

H-2	Types of hazardous Processes involved and its safety measures: (Hydrogenation process, Nitration process, Chlorination process, Exothermic Reaction etc.)
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Type of Process	Safety measures including Automation
Distillation	Checking of Leakages, Temperature and Pressure Controller

H-3	Details of Fire Load Calculation
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1	Name & Address of factory	REMISSION PHARMA CARE PVT. LTD. Survey No. 300, Plot No. 2, Moje: Indrad, Tal: Kadi, Dist: Mehsana, Gujarat - 382 715
2	Phone Number	9904525194  Email: remissionpharmacare@gmail.com
3	Name of occupier	1. Mr. Tarunkumar Patel 2. Mrs. Renuka Patel
4	Total Floor of the factory	02
5	Detail of Combustible Area (In sq. Meter).	80
a	Total Floor area	1706 sq.mt
b	Open space Area in which Combustible Material stored	0.00 m <sup>2</sup>
c	Area having more than 15 meter Height	0.00 m <sup>2</sup>
d	Area having Wooden material	--
	Total (a + b + c + d)	1706

6	(a + b + c + d) / 20	85.3 L/Min	
7	Total Requirement of Water (based on area in sr. no-6)	10,236 liter	
8	Proposed Water storage Capacity for fire hydrant	100,000 liter	
9	Underground Tank + over head tank + On ground Tank	100,000 + 10,000 + 10,000 = 120,000 liter	
10	In case of fire, Arrangement for water to be used in fire fighting	120,000 liter	
a	Is Hydrant Line available? if yes give dimension of pipe.	Yes 15cm	
b.	Which type of arrangement are available for supply water on ground or upper floor i.e. Pipe line and it's Diameter (c.m) Give detail	Fixed Pipe line with flexible pipe providence at storage area, manufacturing process and utility.  Diameter of pipe line shall 10 cm	
c.	Are fire water pump available or Not?  Give detail	Yes, 5 HP Submersible Pump	
10.	If the value of sr.6 is more than 550, then requirement of trailer pump is applicable. if it applicable then what is arrangement for the same. give detail	Sr. 6 value is 85.3 L/Min	
11.	How many water buckets required?	60	
12.	How many 9 Liters water type Extinguisher required? (water Bucket/6)	Fire Extinguisher required (9 Liter Water) = 30/6= 5  Bucket may be dispensed with provided supply of extinguisher is double than indicate above = 05 + 05= 10	
13	Requirement of 5 kg CO <sup>2</sup> type fire Extinguisher for class-E fire. Floor wise  ( 1 for every 15m length)	22 Nos.	
	Total requirement of fire extinguishers ( 5 kg ABC).	32 Nos.	

14	Details of installed fire extinguishers.		
	Sr. No	Types of fire Extinguishers	No. of fire Extinguishers
	1	ABC	10
	2	CO2	22
	3	Sand Bucket	12
	4	Foam	03
	5	DCP	03
	6	TOTAL	50
15.	Additional Fire Extinguishers Required	If Required as per fire NOC or authority recommendation	
16.	Emergency Fire Exit provided to each Floor? Ladder provided to each Floor?	Yes (01 Fire exit will provide at each Floor) Yes (01 ladder will provide at each Floor)	
17.	Arrangement for Fire warning; I.e. Hooter/ Electric Bell / Other	Unit will be provide an Electric Bell	
18.	Water Sprinkler Provided?	Water Sprinkler proposed at storage area, production are, utility.	
H-4	Details of Fire NOC/Certificate:		
After obtaining EC applied for Fire NOC. Fire Hydrant System will be installed as per requirement of Fire NOC.			
H-5	Details of Occupational Health Centre (OHC):		
<ul style="list-style-type: none"> <li>• A doctor will be appointed to check the health of workers and staff twice in a year.</li> <li>• First aid Box will be provided.</li> <li>• Medical facility will be provided as on requirement.</li> <li>• Occupational health centre will be strengthened to provide emergency and nonemergency treatment, by way of emergency first aid on site, liaison with local hospitals and specialists, arranging decontamination of victims, arranging transport of victims to hospitals, and to transfer medical records, and to provide details of incident and medical history to next care provider.</li> </ul>			
Number of permanent Employee :		12	
Number of Contractual person/Labour :		6	
Area provided for OHC:		25	

Number of First Aid Boxes :	3
Nearest General Hospital :	Kalol&Kadi
Name of Antidotes to be store in plant :	"universal antidote" (2 parts activated charcoal, 1 part tannic acid, and 1 part magnesium oxide)

- Committee noted that PP presented revised fire load calculation and fire extinguisher details. PP also presented membership certificate of common spray dryer facility of M/s. Umiya Enviro project LLP and stated that it will be commissioned after December 2021 and till that they will not commission production plant.
- Committee found reply submitted by PP were satisfactory.
- **After detailed discussion, Committee unanimously decided to recommend the project to SEIAA, Gujarat for grant of Environment Clearance with the following specific condition:**

**SPECIFIC CONDITIONS:**

1. PP shall comply conditions of any subsequent amendment or expansion or change in product mix, after the 30th September 2020, considered as per the provisions in force at that time as mentioned in the Notification vide S.O. 1223 (E) dated 27/03/2020.
2. PP shall carry out proposed project/activities in respect of Active Pharmaceutical Ingredients (API) as per the amended EIA Notification vide S.O. 1223 (E) dated 27/03/2020 and any subsequent amendments.
3. PP shall submit six monthly compliance report of Environmental Clearance without fail and the same shall be critically assessed by the regulatory authority.
4. Total number of products manufacturing shall not exceeding two at a given point of time as per the plant capacity shown in plant layout.
5. Unit shall install CEMS [**Continuous Emission Monitoring System**] in line to CPCB directions to all SPCB vide letter no. B-29016/04/06PCI-1/5401 dated 05/02/2014 for effluent discharge and air emission as per pollutants discharge/emission from respective project and an arrangement shall also be done for reflecting the online monitoring results on the company's server, which can be assessable by the GPCB/CPCB on real time basis. [**For Small/Large/Medium (Red Category) & Whichever (Air emission & Effluent discharge) is applicable**].
6. Close loop solvent recovery system with adequate condenser system shall be provided to recover solvent vapours in such a manner that recovery shall be maximum and recovered solvent shall be reused in the process within premises.
7. Leak Detection and Repair (LDAR) program shall be prepared and implemented as per the CPCB guidelines. LDAR Logbooks shall be maintained.

8. All measure shall be taken to avoid soil and ground water contamination within premises.
9. PP shall not commission production plant till common spray dryer facility of M/s. Umiya Enviro project LLP shall be obtained CCA of the Board for acceptance of effluent for evaporation.
10. PP shall not dig bore well within premises without permission of CGWA and shall procure raw water from Industrial estate only and shall submit records of it on monthly basis to GPCB regularly.

### **WATER**

11. Total water requirement for the project shall not exceed 11.60 KLD. Unit shall reuse 5 KLD of treated industrial effluent within premises. Hence, fresh water requirement shall not exceed 6.60 KLD and it shall be met through Industrial estate supply only. Prior permission from concerned authority shall be obtained for withdrawal of water.
12. The industrial effluent generation from the project shall not exceed 5.20 KLD.
13. Total industrial effluent shall be treated in ETP and RO plant. Then 4.10 KLD, RO permeate shall be reused back in process while 1 KLD, RO reject shall be sent to common spray dryer of M/s. Umiya Enviro project LLP through GPS fitted tanker for evaporation.
14. Treated waste water shall be sent to common spray dryer only after complying with the inlet norms of common facilities prescribed by GPCB to ensure no adverse impact on Human Health and Environment.
15. Domestic wastewater generation shall not exceed 0.8 KL/day for proposed project and it shall be treated in STP. It shall not be disposed off through soak pit/ septic tank.
16. Unit shall provide buffer water storage tank of adequate capacity for storage of treated waste water during ant shut down of Common spray dryer.

### **AIR**

17. Unit shall not exceed fuel consumption and provide APCM and Stack height as mentioned in flue gas matrix.
18. Unit shall provide APCM and stack height as mentioned in process gas matrix.

### **HAZARDOUS & SOLID WASTE**

19. All hazardous solid waste shall be managed as mentioned in hazardous waste matrix.
20. The unit shall submit the list of authorized end users of hazardous wastes along with MoU signed with them at least two months in advance prior to the commencement of production. In the absence of potential buyers of these items, the unit shall restrict the production of the respective items.

### **GREENBELT AREA**

21. The PP shall develop green belt within premises (668 Sq. m i.e. 29.31 % of the total plot area) as per the undertaking submitted before SEAC. Green belt shall be developed with native plant species that are significant and used for the pollution abatement as per the CPCB guidelines. It shall be implemented within 3 years of operation phase in consultation with GPCB.



**22. Safety & Health:**

- a) PP shall obtain PESO permission for the storage and handling of hazardous chemicals.
- b) PP shall provide Occupational Health Centre (OHC) as per the provisions under the Gujarat Factories Rule 68-U.
- c) PP shall obtain fire safety certificate / Fire No-Objection certificate (NOC) from the concern authority as per the prevailing Rules / Gujarat Fire Prevention and Life Safety Measures Act, 2016.
- d) Unit shall adopt functional operations/process automation system including emergency response to eliminate risk associated with the hazardous processes.
- e) PP shall carry out mock drill within the premises as per the prevailing guidelines of safety and display proper evacuation plan in the manufacturing area in case of any emergency or accident.
- f) PP shall install adequate fire hydrant system with foam trolley attachment within premises and separate storage of water for the same shall be ensured by PP.
- g) PP shall take all the necessary steps for control of storage hazards within premises ensuring incompatibility of storage raw material and ensure the storage keeping safe distance as per the prevailing guidelines of the concerned authority.
- h) PP shall take all the necessary steps for human safety within premises to ensure that no any harm is caused to any worker/employee or labour within premises.
- i) Flame proof electrical fittings shall be provided in the plant premises, wherever applicable.
- j) Unit shall never store drum/barrels/carboys of incompatible material/chemical together.
- k) Unit shall provide effective Isolation for Process area and storage of hazardous chemicals.
- l) PP shall not install storage tank for storage of Hazardous chemicals as proposed by project proponent and all Hazardous chemicals shall be stored in drums/ bags/ cylinders etc only.
- m) Unit shall provide effective fire hydrants, water monitors & foam application system at solvent storage tank farm area. Unit shall provide adequate safety system such as water sprinklers, water curtains, foam pouring system etc. to restrict cascade fire emergency in solvent tank farm.

6.	<b>SIA/GJ/IND2/45809/2019</b>	<b>M/S. Pasupati Industries, Unit-II.</b>  Plot No. C-51, GIDC Saykha Industrial Estate, Village: Saykha, Ta: Vagra, Dist: Bharuch.-392140	EC-Reconsideration
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Category of the unit: **5(f)**

Project status: **New**

- Project proponent (PP) submitted online application vide SIA/GJ/IND2/45809/2020 on dated 27/11/2020 for obtaining Environmental Clearance (EC).
- SEIAA issued TOR to PP vide their letter dated 29/04/2020(Auto generated ToR).
- Project proponent has submitted EIA Report prepared by M/s: B.S. Rana based on the TOR issued by

SEIAA.

- This is a new unit and now proposed for manufacturing of synthetic organic chemicals as tabulated below: **(Revised)**

Sr. No.	Product Name	CAS No.	Quantity (MT/ Month)	Use of Product
<b>DYES INTERMEDIATES</b>				
1	PAABSA (Para-Aminoazobenzene-4-Sulfonic acid) (Max. Capacity:20 MT/M)	104-23-4	<b>330</b>	<b>Dyes Manufacturing</b>
2	Meta Ureido Aniline (Max. Capacity:50 MT/M)	99-09-2		
3	4- CAP (4 Chloro 2 Amino Phenol) (Max. Capacity:50 MT/M)	95-85-2		
4	Aniline 2:5 DSA (Max. Capacity:50 MT/M)	98-44-2		
5	Aniline 2:4 DSA (Max. Capacity:50 MT/M)	137-51-9		
6	5- NAP (Max. Capacity:20 MT/M)	121-88-0		
7	4 Sulpho Anthranilic Acid (Max. Capacity:35 MT/M)	98-43-1		
8	PNTOSA (Max. Capacity:100 MT/M) (Pera Nitro Toluene Ortho Sulfonic Acid)	121-03-9		
9	2:5 DCPNA (Max. Capacity:20 MT/M) (2,5-Dichloro-4-nitroaniline)	6627-34-5		
10	4 NAPSA (4 Nitro 2 Aminophenol 6 Sulfonic Acid) (Max. Capacity:20 MT/M)	96-67-3		
11	DNSDA (4-4 Di- Nitro Stilbin 2-2 Disulphonic Acid) (Max. Capacity:50 MT/M)	128-42-7		
12	MPDSA (Meta Phenylene Diamine Sulphonic Acid) (Max. Capacity:50 MT/M)	88-63-1		
13	MPDDSA (Meta Phenylene diamine - 4,6 Disulfonic Acid) (Max. Capacity:50 MT/M)	137-50-8		
14	MAP (beta-Methyl vinyl phosphate ) (Max. Capacity:50 MT/M)	90776-59-3		
15	Chronotropic Acid (Max. Capacity:50 MT/M)	1158-10-7		
16	J-Acid	87-02-5		

	(Max. Capacity:50 MT/M)			
17	Mix Cleave Acid (Max. Capacity:50 MT/M)	51548-48-2		
18	F.C. Acid (Max. Capacity:50 MT/M)	119-70-0		
19	4 SulphoHydrozone (Max. Capacity:50 MT/M)	118969-29-2		
20	K Acid (Max. Capacity:50 MT/M)	118-03-6		
21	S.T.A (Max. Capacity:50 MT/M)	117-62-4		
22	Gamma Acid (Max. Capacity:50 MT/M)	90-51-7		
23	DABA (Diaminobenzoic Acid) (Max. Capacity:50 MT/M)	785-30-8		
24	R.R. Acid (Max. Capacity:50 MT/M)	90-40-4		
	N Methyl J-Acid	22345-43-6		
26	SulphoV.S	42986-22-1		
27	DMAVS	26672-24-2		
28	DASA	16803-97-7		
29	Anthraquinone	84-65-1		
30	1 Chloro Anthraquinone	82-44-0		
31	1:5 Di Chloro Anthraquinone	82-46-2		
32	1:8 Di Chloro Anthraquinone	82-43-9		
33	MPD (2-Methyl-2,4-pentenediol)	108-45-2		
34	Tobias Acid	81-16-3		
<b>REACTIVE DYES</b>				
35	Reactive Black 8	12225-26-2	600	<b>Reactive dyes</b> are <b>dyes</b> used for dyeing protein, cellulose and polyamide fiber
36	Reactive Black 31	12731-63-4		
37	Reactive Black 39	68259-02-9		
38	Reactive Black 5/Mix	12225-25-1		
39	Reactive Black WNN	Mixed Dyes		
40	Reactive Red 3.1	23211-47-4		
41	Reactive Red 21	11099-79-9		
42	Reactive Red 24.1	72829-25-5		
43	Reactive Red 31	12237-00-2		
44	Reactive Red 45	12226-22-1		
45	Reactive Red 111	88232-20-6		
46	Reactive Red 120	61951-82-4		
47	Reactive Red 141	61931-52-0		
48	Reactive Red 195	93050-79-4		
49	Reactive Red 198	145017-98-7		
50	Reactive Red 218	113653-03-5		

51	Reactive Red 222	93051-45-7		
52	Reactive Red 223	93051-43-5		
53	Reactive Red 245	340977-00-6		
54	Reactive Red 250	125830-49-1		
55	Reactive Red CD	91-56-5		
56	Reactive Yellow 15	12226-47-0		
57	Reactive Yellow 18	12226-48-1		
58	Reactive Yellow 42	12226-63-0		
59	Reactive Yellow 44	12270-91-6		
60	Reactive Yellow 57	61969-35-5		
61	Reactive Yellow 84	61951-85-7		
62	Reactive Yellow 85	71872-81-6		
63	Reactive Yellow 86	61951-86-8		
64	Reactive Yellow 95	71838-98-7		
65	Reactive Yellow 135	77907-38-1		
66	Reactive Yellow 145	93050-80-7		
67	Reactive Yellow 160	129898-77-7		
68	Reactive Yellow 186	84000-63-5		
69	Reactive Yellow 210	Mixed Dyes		
70	Reactive Yellow XLR	5809-16-7		
71	Reactive Yellow HEXL	Mixed Dyes		
72	Reactive Yellow HE4G	59112-78-6		
73	Reactive Yellow W3R	12220-12-1		
74	Reactive Yellow RR	93050-80-7		
75	Reactive Orange 12	35642-64-9		
76	Reactive Orange 13	12225-85-3		
77	Reactive Orange 16	12225-83-1		
78	Reactive Orange 35	12270-76-7		
79	Reactive Orange 84	91261-29-9		
80	Reactive Orange 107	90597-79-8		
81	Reactive Orange 122	79809-27-1		
82	Reactive Orange 2R	79809-27-1		
83	Reactive Orange W3R	12220-12-1		
84	Reactive Orange R	12220-12-1		
85	Reactive Blue 13	12236-84-9		
86	Reactive Blue 21	12236-86-1		
87	Reactive Blue 39	12225-53-5		
88	Reactive Blue 49	12236-92-9		
89	Reactive Blue 160	71872-76-9		
90	Reactive Blue 171	77907-32-5		
91	Reactive Blue 194	93050-78-3		
92	Reactive Blue 198	124448-55-1		

93	Reactive Blue 203	147826-71-9		
94	Reactive Blue 220	128416-19-3		
95	Reactive Blue 221	93051-41-3		
96	Reactive Blue 222	93051-44-6		
97	Reactive Blue 250	93951-21-4		
98	Reactive Blue FNG	Mixed Dyes		
99	Reactive Blue XLE	2580-78-1		
100	Reactive Brown 11	12225-68-2		
101	Reactive Scarlet W2R	Mixed Dyes		
102	Reactive Violet 46	-----		
103	Reactive Violet ME2RL	Mixed Dyes		
104	Reactive Magenta MERL	Mixed Dyes		
<b>ACID DYES</b>				
105	Acid Black 2	80316-29-6	600	<b>Acid dyes</b> are used to dye natural protein (wool and silk), synthetic polyamide (nylon)
106	Acid Black 113	3351-05-1		
107	Acid Black 193	12392-64-2		
108	Acid Black 194	61931-02-0		
109	Acid Black 210	99576-15-5		
110	Acid Black 234	157577-99-6		
111	Acid Black 10BX	1820-82-5		
112	Acid Red 97	10169-02-5		
113	Acid Red 131	12234-99-0		
114	Acid Orange 7	633-96-5		
115	Acid Brown 75	8011-86-7		
116	Acid Brown 83	13011-68-2		
117	Acid Brown 355	60181-77-3		
118	Acid Brown 425	119509-49-8		
<b>SOLVENT DYES</b>				<b>Solvent dyes</b> are used to color organic <b>solvents</b> , hydrocarbon fuels, waxes, lubricants, plastics, and other hydrocarbon-based nonpolar materials
119	Solvent Black 5	11099-03-9	200	
120	Solvent Black 7	8005-02-5		
<b>DIRECT DYES</b>				
121	Direct Black 22	6473-13-8	600	<b>Direct dyes</b> are used on cotton, paper, leather, wool, silk and nylon
122	Direct Black 168	85631-88-5		
123	Direct Black 179	143549-91-1		
124	Direct Blue 71	4399-55-7		
125	Direct Blue 86	1330-38-7		
126	Direct Blue 199	12222-04-7		
127	Direct Orange 26	3626-36-6		
128	Direct Red 81	9/11/10		

129	Direct Red 80	8/10/10		
130	Direct Red 239	60202-35-9		
131	Direct Red 253	12222-51-4		
<b>TOTAL</b>			<b>(2000 SO Dyes + 330 Dyes Intermediates)</b>	

**Note:-We have made group wise intermediate products and total quantity of dyes intermediates will not be exceed 330 MT/Month. Dyes will be manufactured 2000 MT/Month.**

**# Brief Note of Product Profile:**

1. No of Manufacturing Plants: **2 no's**
2. Brief Note regarding number of Products to be manufactured considering plant capacity:

**Maximum 5 products (Dyes) and 3 products (dyes intermediates) can be manufactured simultaneously.**

- The project falls under Category B of project activity 5(f) as per the schedule of EIA Notification 2006.
- The presentation was considered in the video conference meeting dated 12/03/2021.
- During the video conference meeting dated 12/03/2021, the project was appraised based on the information furnished by technical expert of PP, M/s. B.S.Rana. During the meeting, the project was appraised based on the information furnished in the EIA Report, and details presented during the meeting.
- Upon asking regarding QCI/NABET accreditation for preparation of EIA preparation for proposed project, technical expert of PP informed that they have not obtained QCI/NABET accreditation for preparation of EIA/EMP report as per the amended EIA Notification vide S.O. 648 (E) Dated 03.03.2016 and have submitted Honorable High court stay order in EIA report regarding EIA preparation by M/s B.S.Rana , technical consultant of proposed project.
- Committee noted that this is Greenfield project in GIDC Saykha. Source of water supply is GIDC. Looking to product profile submitted by technical expert of PP showing total dyes intermediate production capacity is 2000 MT/Month and product profile presented in presentation showing total dyes intermediate production capacity is 330 MT/Month, hence Committee asked for clarification regarding total dyes intermediate production capacity mentioned as 2000 MT/Month in prescribed format and 330 MT/Month in presentation. Also Committee insisted for submission of adequate product profile and proposal and water, air and Hazardous waste details, EMP and changes in EIA report.
- Looking to area adequacy for dirty dyes intermediate products and dyes products manufacturing and project cost mentioned as only 4.5 crore, Committee insisted for revised area adequacy and layout plan with mentioning separate dyes production plant and dyes intermediate plant, adequate size peripheral road, separate total ZLD ETP for dirty dyes intermediate products and another ETP for other dyes intermediate and dyes products, storage of hazardous chemicals considering its type of hazard and as per compatibility chart,

greenbelt area and all area with dimensional scale in layout plan with land break up. Also Committee insisted for revised waste water treatment proposal and water balance diagram considering separate total ZLD ETP proposal for dirt products as per GPCB circular dated 03/11/2018 and another ETP for rest of products.

- Upon asking regarding primary and secondary data mentioned in EIA report as technical expert of PP is not having QCI/NABET accreditation for preparation of EIA and EMP report, technical expert of PP could not answered regarding primary and secondary data for preparation of EIA report. Hence Committee took seriously regarding it and insisted for submission of details of name of laboratory and organization whom primary and secondary data utilized by technical expert of PP for preparation of EIA/EMP report of proposed project.
- *Committee observed that compliance of ToR report submitted by technical expert of PP are distinctly deficient in quality, are not reflecting environmental concerns.*
- **After deliberation, SEAC unanimously decided to defer the proposal and consider the same in one of the upcoming meeting of SEAC after satisfactory submission of following details:**
  1. Clarification regarding total dyes intermediate production capacity mentioned as 2000 MT/Month in prescribed format and presented dyes intermediate production 330 MT/Month in presentation during meeting.
  2. Revised adequate product profile and proposal and water, air and Hazardous waste details, EMP and subsequent changes in EIA report.
  3. Revised area adequacy and layout plan with mentioning separate dyes production plant and dyes intermediate plant, adequate size peripheral road, separate total ZLD ETP for dirty dyes intermediate products and another ETP for other dyes intermediate and dyes products, storage of hazardous chemicals considering its type of hazard and as per compatibility chart, greenbelt area and all area with dimensional scale in layout plan with land break up.
  4. Revised waste water treatment proposal and water balance diagram considering separate total ZLD ETP proposal for dirt products as per GPCB circular dated 03/11/2018 and another ETP for rest of products.
  5. Details of name of laboratory and organization is having valid NABL accreditation laboratory certificate or not, whom primary and secondary data utilized by technical expert of PP for preparation of EIA/EMP report of proposed project.
- PP submitted the reply of the said points along with other supporting documents.
- This proposal is reconsidered in SEAC meeting dated 31.05.2021. PP along with their technical expert/consultant from M/s B S Rana remains present in the meeting and made presentation before committee.
- During the video conference meeting dated: 31.05.2021, the project was appraised based on the information furnished in the EIA Report and details presented during the meeting.
- The baseline environmental quality has been assessed for various components of the environment viz. air, noise, water, biological and socioeconomic aspect. The baseline environmental study has been conducted for the study area of 10 km radial distance from project site for the period December-2019 to February-2020.

Ambient Air Quality monitoring was carried out PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>x</sub> and NO<sub>x</sub> at Ten locations, including the project site. Values conform to the prescribed standards for Ambient Air Quality. The incremental Ground Level Concentration (GLC) has been computed. Incremental GLC's for all parameters remain within 500 m from the project site. The resultant concentrations are within the NAAQS. The modelling study proved that the air emissions from the proposed plant would not affect the ambient air quality of the region in any significant manner. The ambient air quality around the proposed project site will remain within the National Ambient Air Quality Standards (NAAQS).

- Committee noted the following:
  - ✓ Revised product profile mentioning group wise or individual capacity of various dyes & dyes intermediates. At a time, 5 Nos of dyes and 3 Nos of dyes intermediates can be manufactured.
  - ✓ Site Plan/ layout with fire plan provision of separate entry & exit, 4.50 m & 6 m wide peripheral road for emergency exit, OHC, utility, production area, raw material storage area, etc.
  - ✓ Stream wise segregation of effluent will be carried out.
  - ✓ Concentrated effluent generated from process will be treated in ETP followed by MEE. MEE condensate will be sent to CETP-Saykha.
  - ✓ Dilute effluent will be treated in ETP followed by RO. RO permeate will be reused within premises and RO reject will be sent to CETP-Saykha.
  - ✓ Domestic effluent will be disposed in soak pit.
  - ✓ Coal or lignite or agro waste is proposed as fuel in boiler, HAGs and TFH.
  - ✓ PP submitted hazardous waste matrix mentioning source of generation, quantity and Mode of disposal and committed to comply the Hazardous and Other Wastes (Management and Transboundary Movement) Rules 2016.
- Committee deliberated on Product profile, Layout plan, Storage details, Process safety, Fire safety, water balance & waste water management, Flue gas and process gas emission & Air Pollution Control System, Hazardous waste matrix, EMP, CER, Green belt, TOR compliances, etc.
- Committee insisted to provide the following details:
  - ✓ Site Plan/ layout with dimensional scale for each section of plant area and mentioning adequate size peripheral road for ease movement of fire tender and emergency vehicles, production plant area, greenbelt development area, storage of raw material, finished goods storage of Hazardous chemicals considering its type of hazard and compatibility chart, separate entry and exit etc with area adequacy.
  - ✓ Water balance mentioning treatment of domestic effluent and reuse of MEE condensate within premises and compliance of GPCB circular for dirty products dated: 03.11.2018.
  - ✓ Flue gas matrix by removing lignite as a fuel.
  - ✓ Details of automatic control system for critical processes.
  - ✓ Membership of TSDF & CHWIF mentioning capacities as per GPCB Circular dated: 08.01.2020.
  - ✓ Details of Personal Protective Equipments for handling of various types of hazardous chemicals.
  - ✓ Risk assessment of hazardous chemicals considering worst case scenario with details of affected population.





			In Crores)	In Crores)	(Rs. In Crores)	Cost (Rs. In Crores)
1	Waste Water	ETP	0.3	0.11	0.03	0.14
2	Air	APCM	0.1	0.07	0.02	0.09
3	Hazardous Management	Separate room, membership & Disposal	0.01	0.01	0.01	0.02
4	Fire & Safety	EPE / Fire hydrate system	0.2	0.01	0.01	0.02
5	AWH Monitoring	Stack monitoring /waste water analysis / Soil test / noise test	0.05	0.01	0.01	0.02
6	Green belt Development	Sample fertilizer	0.03	0.02	0.01	0.03
7	Occupational Health	First aid box	0.01	0.005	0.003	0.008
8	CER		0.074	0.08	0.08	0.16
Total			0.712	0.315	0.173	0.488

#### Summary

Cost of Project in Crores per Annum:	4.5
EMP Capital Cost in Crores per Annum and Percentage:	0.712 15.77%
EMP Recurring Cost in Crores per Annum and Percentage:	0.488 10.84%

A-3

Details of CER as per OM dated 01/05/2018

% as per the OM	Rs. in Crores
2 %	0.090

In case of more than % as per the OM, mention the same.

#### Brief note on proposed activities for CER:

Planned activities under CER per specific needs at nearest villages within study area	Budget (INR)					
	1 <sup>st</sup> year	2 <sup>nd</sup> Year	3 <sup>rd</sup> Year	4 <sup>th</sup> Year	5 <sup>th</sup> Year	Total
	(21-22)	(22-23)	(23-24)	(24-25)	(25-26)	
Drinking Water Plant Village :Pakhjan 9.89 km West and Shankhwad 6.08 km, South	2,40,000	20,000	20,000	20,000	20,000	3,20,000

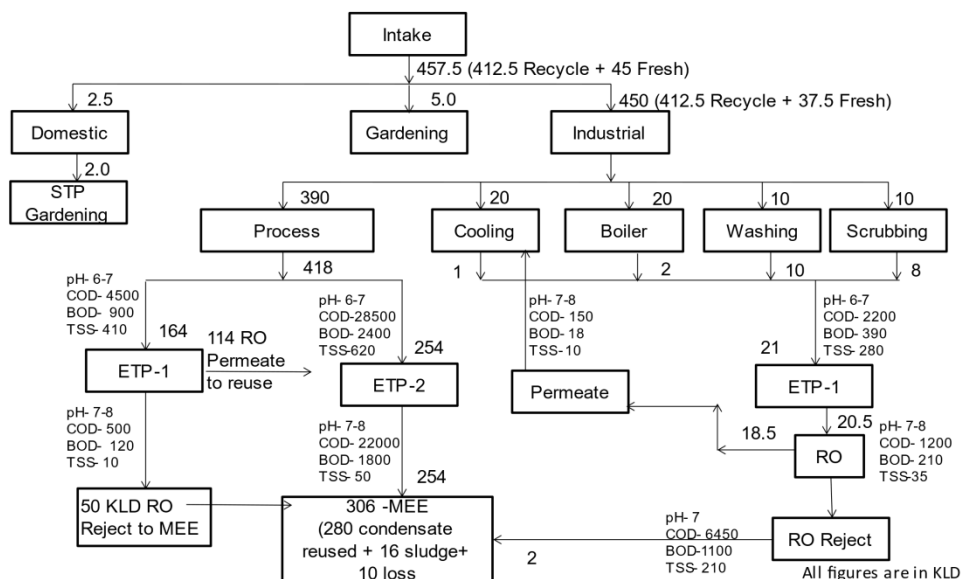
	Solar Street Light 20 Nos.	5,00,000	20,000	20,000	20,000	20,000	5,80,000																														
	Total	7,40,000	40,000	40,000	40,000	40,000	9,00,000																														
B	Land / Plot ownership details:																																				
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D-1	Source of Water Supply (GIDC, Bore well, Surface water, Tanker supply etc...)																																													
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D-3	Waste water generation (KLD)																															
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<p>Brief Note on worst case scenario for waste water generation(Qualitative and Quantitative):</p> <p>Total effluent generation for proposed facility will be 441 KLD. Domestic waste water of 2.0 KLD will be treated in STP and used for green belt development.</p> <p>439 KLD Industrial wastewater will be treated in ETP. Generated industrial effluent 423.9 KLD will be maintained ZLD by providing MEE in premises. MEE capacity will be 20 KL/Hr.</p>																																

Brief justification in case of no process effluent generation or no industrial effluent generation or no high concentration effluent generation from proposed project (Whichever is applicable). ➤	
D-4	Mode of Disposal & Final meeting point
-	
Domestic:	Soak pit
Industrial:	CETP, Saykha GIDC
-	
Clearly mention about final disposal	
Total effluent generation for proposed facility will be 441 KLD. Domestic waste water of 2.0 KLD will be treated in STP and used for greenbelt development.	
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D-5	Treatment facilities
For Domestic waste water: Capacity of STP: 0.0	
For Industrial waste water: Treatment facility within premises with capacity [In-house ETP (Primary, Secondary, Tertiary), MEE, Stripper, Spray Dryer, STP etc. Treatment scheme including segregation at source. (Give Characteristics of each stream i.e. COD, BOD, TDS etc.) In case of stream segregation, Separate ETP (ETP-1, ETP-2....) for each stream shall be proposed.	
Total effluent generation for proposed facility will be 441 KLD. Domestic waste water of 2.0 KLD will be discharge to soak pit. 439 KLD Industrial wastewater will be treated in ETP. Generated industrial effluent 423.9 KLD will be discharged to Common CETP of Saykha GIDC after treatment to in-house ETP having primary, Secondary & Tertiary treatment units OR It will be maintained ZLD by providing MEE in premises. MEE capacity will be 20 KL/Hr.	
<u>Note: (In case of CETP discharge) :</u> Management of waste water keeping in view direction under section 18 (1) (b) of the Water (Prevention and Control of Pollution) act, 1974 issued by CPCB regarding compliance of CETP. ➤ As CETP Saykha is a newly proposed CETP and hence there is no existing load and it is designed to considering the allotted plot and type of industries.	
<u>Brief note on adequacy of ZLD (In case of Zero Liquid Discharge):</u> ➤ In case CETP connection is not available maintained ZLD by providing MEE in premises.	
D-6	In case of Common facility (CF) i.e. CETP, Common Spray dryer, Common MEE, CHWIF etc. Name of Common facility (CF) (For waste water treatment) ➤ Saykha CETP Membership of Common facility (CF) mentioning total capacity, consented quantity, occupied capacity and spare capacity and norms of acceptance of effluent from member units in-line with the direction given by GPCB vide Letter No. GPCB/P-1/8-G (5)/550706 dated 08/01/2020. ➤
D-7	Simplified water balance diagram with reuse / recycle of waste water

### Water Balance



<b>E</b>	<b>AIR</b>
<b>E-1</b>	Brief Note on fuel based Heat energy requirement and worst case scenario thereof:
We have calculated the calorific value of fuel and it will change product profile. And hence we have considered the maximum use of fuel on worst case senerio and APCM accordingly.	
<b>E-2</b>	Flue gas emission details No. of Boilers/TFH/Furnaces/DG sets etc. with capacities viz. TPH, Kcal/hr, MT/hr, KVA etc. (In case of Project located within CPA/SPA , APCM shall be in line to the mechanism published in the MOEFCC's OM vide dated 31.10.2019)

Sr. no.	Source of emission With Capacity	Stack Height (meter)	Type of Fuel	Quantity of Fuel MT/Day	Type of emissions i.e. Air Pollutants	Air Pollution Control Measures (APCM)
1	Steam Boiler (3TPH)	30	Coal/ Agro-waste	8 MT/Day	PM/SO <sub>2</sub> /NO <sub>x</sub>	Cyclone Separator Followed by Bag Filter & Water Scrubber
2	Hot Air Generator – 1 12 Lac K cal.	33	Coal/ Agro-waste	5 MT/Day	PM/SO <sub>2</sub> /NO <sub>x</sub>	Cyclone Separator Followed by Bag Filter & Water Scrubber
3	Hot Air Generator – 2 10 Lac K cal	33	Coal/ Agro-waste	5 MT/Day	PM/SO <sub>2</sub> /NO <sub>x</sub>	Cyclone Separator Followed by Bag Filter & Water Scrubber

4	Thermic Fluid Heater 20 Lac K Cal	33	Coal/Agro-waste	9 MT/Day	PM/SO <sub>2</sub> /NO <sub>x</sub>	Cyclone Separator Followed by Bag Filter & Water Scrubber
5	DG Set 500 KVA	11	Diesel	12 Lit/Hr	PM/SO <sub>2</sub> /NO <sub>x</sub>	Adequate Stack Height

E-3 Process gas i.e. Type of pollutant gases (SO<sub>2</sub>, HCl, NH<sub>3</sub>, Cl<sub>2</sub>, NO<sub>x</sub> etc.)

Sr. no.	Specific Source of emission (Name of the Product & Process)	Type of emission	Stack/Vent Height (meter)	Air Pollution Control Measures (APCM)
1.	Spray Dryer– 3.5 KL/Hr (For Process)	Particulate Matter	30	Cyclone Separator + Wet Scrubber + Secondary Scrubber
2	Spray Dryer – 2.5 KL/Hr (For Diluted effluent)	Particulate Matter	30	Cyclone Separator + Wet Scrubber + Secondary Scrubber
3	MEE (For Concentrated Effluent)	Particulate Matter	30	Cyclone Separator + Wet Scrubber
4	Spin flash Dryer	Particulate Matter	20	Cyclone separator + Bag filter
5	Sulfonation	SO <sub>2</sub> , SO <sub>3</sub>	20	Two stage water and alkali scrubber
6	Nitration	NO <sub>2</sub>	20	Two stage water and alkali scrubber
7	Amidation	NH <sub>3</sub>	20	Two stage water scrubber
8	Chlorination	HCl	20	Two stage water and alkali scrubber
9	Ammonia	NH <sub>3</sub>	20	Two stage water scrubber

Note:

- Details of gaseous raw materials used in proposed project
- Estimation of process gas emission (Product wise and Total)



<ul style="list-style-type: none"> <li>➤ Requirement of the scrubbing media (KL per Day) considering solubility (Product wise and Total)</li> <li>➤ Yearly generation of all bleed liquors (MT/KL per Annum) as mentioned above and its sound management in HW matrix.</li> </ul>																																																					
E-4	Fugitive emission details with its mitigation measures. <ul style="list-style-type: none"> <li>➤ Whole process will be carried out in close loop.</li> <li>➤ Pipe line will be having minimum flange.</li> <li>➤ Pump with double mechanical seals</li> <li>➤ Proper ventilation.</li> </ul>																																																				
F	Hazardous waste (As per the Hazardous and Other Wastes (Management and Transboundary Movement) Rules 2016. Note: <ul style="list-style-type: none"> <li>➤ Priorities for HW Management: Pre-processing, Co-Processing, Reuse/Recycle within premises, Sell out to actual users having Rule-9 permission, TSDF/CHWIH.</li> <li>➤ Quantification of hazardous waste shall be based on mass balance and calculations shall be incorporated in EMP details separately.</li> <li>➤ Disposal to scrap vendors/vendors/traders is not allowed</li> </ul>																																																				
F-1	Hazardous waste management matrix																																																				
<table border="1"> <thead> <tr> <th>Sr. no.</th> <th>Type/Name of Hazardous waste</th> <th>Specific Source of generation (Name of the Activity, Product etc.)</th> <th>Category and Schedule as per HW Rules.</th> <th>Quantity (MT/Annum)</th> <th>Management of HW</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>ETP Sludge</td> <td>35.3</td> <td>34.3</td> <td>120</td> <td>Collection,</td> </tr> <tr> <td>2</td> <td>Used oil</td> <td>5.1</td> <td>34.3</td> <td>0.020 (KL)</td> <td>Collection,</td> </tr> <tr> <td>3</td> <td>Discarded Containers/ Drums/ Liners</td> <td>33.1</td> <td>33.3</td> <td>600</td> <td>Collection, Transportation, Disposal by selling to authorized recycler.</td> </tr> <tr> <td>4</td> <td>Iron sludge</td> <td>26.1</td> <td>5.1</td> <td>7600</td> <td>Collection, Rule 9 authority</td> </tr> <tr> <td>5</td> <td>Dilute HCl (30%)</td> <td>21.1</td> <td>26.1</td> <td>8400</td> <td>Collection, Rule 9 authority</td> </tr> <tr> <td>6</td> <td>Ammonium Hydroxide Solution</td> <td>26.1</td> <td>D2 of Sch-II</td> <td>1800</td> <td>Collection, Rule 9 authority</td> </tr> <tr> <td>7</td> <td>Sodium Bisulfite</td> <td>26.1</td> <td>26.10</td> <td>1300</td> <td>Collection,</td> </tr> </tbody> </table>						Sr. no.	Type/Name of Hazardous waste	Specific Source of generation (Name of the Activity, Product etc.)	Category and Schedule as per HW Rules.	Quantity (MT/Annum)	Management of HW	1	ETP Sludge	35.3	34.3	120	Collection,	2	Used oil	5.1	34.3	0.020 (KL)	Collection,	3	Discarded Containers/ Drums/ Liners	33.1	33.3	600	Collection, Transportation, Disposal by selling to authorized recycler.	4	Iron sludge	26.1	5.1	7600	Collection, Rule 9 authority	5	Dilute HCl (30%)	21.1	26.1	8400	Collection, Rule 9 authority	6	Ammonium Hydroxide Solution	26.1	D2 of Sch-II	1800	Collection, Rule 9 authority	7	Sodium Bisulfite	26.1	26.10	1300	Collection,
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8	Spent Acid (35 TO 42 %)	21.1	D2 of Sch=II	6480	Collection, Storage, Reuse in K Acid, J Acid, Anthraquinone,
9	Spent Carbon	---		790	Collection, facility
F-2	Membership details of TSDF, CHWIF etc. (For HW management)				
Details of Membership letter no. & Date with spare capacity of the Common Facility. ➤ Membership TSDF/CHWIF will be obtained after getting environment Clearance					
F-3	Details of Non-Hazardous waste & its disposal (MSW and others)			Not applicable	
	Sr. no.	Type/Name of Other wastes	Specific Source of generation (Name of the Activity, Product etc.)	Quantity (MT/Annum)	Management of Wastes
	1	MSW	OWC & Paper	0.5	Used as manure for green belt development or sold to actual users.
	2	Office Stationery	Plastic	0.1	Sell to the register recycler
G	Solvent management, VOC emissions etc.				
G-1	Brief Note on types of solvents, Details of Solvent recovery, % recovery, reuse of recovered Solvents etc.				
➤ Not Applicable					
G-2	Brief Note on LDAR proposed:				
<ul style="list-style-type: none"> <li>➤ Identify the Chemical streams that must be monitored.</li> <li>➤ Types of components (pumps, valves, connectors, etc.) to be monitored</li> <li>➤ Frequency of monitoring.</li> <li>➤ Actions to be taken if a leak is detected.</li> <li>➤ Length of time in which an attempt to repair the leak must be performed.</li> <li>➤ Actions that must be taken if a leak cannot be repaired within guidelines.</li> <li>➤ Record-keeping and reporting requirements.</li> </ul>					
G-3	VOC emission sources and its mitigation measures				
<ul style="list-style-type: none"> <li>➤ Leak Free Pumps for transfer of solvents.</li> <li>➤ MSW Gaskets in solvent pipelines to prevent leakage from flanges.</li> <li>➤ Minimum number of flanges, joints and valves in pipelines.</li> <li>➤ To eliminate chances of leakages from glands of pumps, mechanical seal will be provided at all solvent pumps.</li> <li>➤ All the rotating equipments like pumps will be installed with Mechanical Seals to arrest any sort of emissions.</li> <li>➤ Condenser and scrubber post Reactor with cooling arrangement.</li> </ul>					

- Enclosures to chemical storage area, collection of emission from loading of raw materials in particular solvents through hoods and ducts by induced draft, and control by condenser to be ensured.
- In case the small spillage or leakage observed, first pour the china clay (vermiculate) on material and collect the contaminated china clay (vermiculate) and send to ETP.
- If the spillage is of inflammable liquid, switch off all the power supply in the area to prevent Electric Spark.
- Two condensers will install with cooling water and chilled brine to recover the solvent.
- Primary Condenser HE-01: Cooling Tower water or Chilled water at 5 °C will be used to condense the solvents depend on the vapor pressure at its operating conditions and the non condensed vapors will be condensed in a Secondary Condenser.
- VOC Trap Condenser HE-02: Chilled Brine at -15 °C will be used to trap any traces of Solvent which is slipped from Secondary condenser.
- Emission of VOCs can be trapped from breathing and loading losses from storage tanks, venting of process vessels, leak from piping and equipment by means of hood connected with blower and send to condenser as shown in following diagram.
- Condensed VOCs will be send to spent solvent recovery plant.

**H SAFETY details**

**H-1** Details regarding storage of Hazardous chemicals  
(For tank storages only including spent acid and spent solvent tanks)

Sr.no	Name of Chemical	Capacity of Tank	Number of Tanks	Hazardous Characteristics of Chemical
1	Spent Acid	20 KL	2 1 working + 1 Spare	

Brief note on storage of Hazardous chemicals in Tanks

➤

Brief note on storage of Hazardous chemicals other than Tanks i.e. Drum, Barrels, Carboys, Bags etc.

- Solids materials will be stored in PP bags Liquid materials will be drums of 200 kg and barrels 35 to 50 kg.

Safety details of Hazardous Chemicals:

Type of Hazardous Chemicals	Safety measures
Ammonia	Aloha, Detail Given in EIA
Aniline	
Benzoyl chloride 1	
HCl	
Oleum	

- Applicability of PESO : Not Applicable.

**H-2** Types of hazardous Processes involved and its safety measures:  
(Hydrogenation process, Nitration process, Chlorination process, Exothermic Reaction etc.)

Type of Process	Safety measures including Automation
Sulfonation	<ul style="list-style-type: none"> <li>➤ Provision of Safety valve &amp; rupture disc on reactor.</li> <li>➤ Provision of auto dumping vessel.</li> <li>➤ Required PPEs like full body protection PVC apron, Hand gloves, gumboot, Respiratory mask etc. will be provided to operator.</li> <li>➤ To avoid runaway reaction, TC charging will be done gradually &amp; slowly</li> </ul>

	<p>to avoid runaway reaction, TC charging will be done gradually &amp; slowly.</p> <ul style="list-style-type: none"> <li>➤ Charging will be done only through closed line and system. Scrubber attached with closed system.</li> <li>➤ Make sure the absorber unit (two stage Alkali scrubber) is working and capable of handling vented SO<sub>2</sub> fumes.</li> <li>➤ Neutralizing agent will be kept ready for tackle any emergency spillage.</li> <li>➤ Safety Shower and eye wash will be provided near process area</li> <li>➤ Emergency siren and wind sock will be provided.</li> <li>➤ Tele Communication system and mobile phone will be used in case of emergency situations for communication.</li> <li>➤ Caution note and emergency first aid will be displayed and train for the same to all employees.</li> <li>➤ First Aid Boxes will be available in process area.</li> <li>➤ Emergency organization and team will be prepared as per On site-Off site emergency planning.</li> <li>➤ Emergency team will be prepared and trained for scenario base emergency. Like Toxic control team, Fire control team, First aid team, communication and general administration team, Medical team etc.</li> <li>➤ Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.</li> <li>➤ Use water spray to reduce vapors; do not put water directly on leak, spill area or inside container. Keep combustibles (wood, paper, oil, etc.) away from spilled material.</li> <li>➤ Cover with DRY earth, DRY sand or other non-combustible material followed with plastic sheet to minimize spreading or contact with rain.</li> </ul>	
Nitration	<ul style="list-style-type: none"> <li>➤ Nitration will be done in closed S.S vessels.</li> <li>➤ Nitric acid will be used for nitration process. Nitric acid is an extremely corrosive acid capable of causing severe chemical burns very rapidly. Because of the hazards posed by nitric acid, it is important to take safety measures whenever handling it.</li> <li>➤ In our nitration process, exothermic reaction will be controlled by adequate dosing of reaction chemicals in a fixed time (not short duration) having adequate cooling water circulation in jacket of reaction vessels. Thus, any energy generated due to exothermic reaction will be controlled by external cooling circulation and therefore vessels will not be pressurized.</li> <li>➤ The nitration reaction will be controlled by systematic cooling design to withdraw the energy evolved.</li> <li>➤ Adequate pressure relief valve will be provided for each vessels having pressure release capacity will be kept below -3 kg/cm<sup>2</sup> than that of reaction vessels.</li> </ul>	
Hydrogenation	<ul style="list-style-type: none"> <li>➤ FLP type area will be provided.</li> <li>➤ Total enclosed process system.</li> <li>➤ Nitrogen blanketing in Hydrogenation reactor.</li> <li>➤ Safety valve and Rupture disc provided on reactor.</li> <li>➤ Cooling Chilling and power alternative arrangement have been made on reactor.</li> <li>➤ PRV station with shut off valve, safety valve provision will be made for hydrogenation reaction safety.</li> <li>➤ Before Hydrogen Gas charging in to reactor and after completion of reaction Nitrogen flushing will be done.</li> <li>➤ Flame arrestor will be provided on vent line of reactor and it will be extended up to roof level.</li> <li>➤ Open well ventilated and fragile roofs will be provided to on reactor.</li> <li>➤ Safe Catalyst charging method will be adopted.</li> <li>➤ SOP will be prepared and operators will be trained for the same.</li> <li>➤ Static earthing and electric earthing (Double) provided.</li> </ul>	

- Dumping vessel arrangement will be made.
- Jumpers for static earthing on pipeline flanges of flammable chemical will be provided.

H-3 Details of Fire Load Calculation

-	
Total Plot Area:	5000
Area utilized for plant activity:	1150
Area utilized for Hazardous Chemicals Storage:	560
Number of Floors:	G + 1
Water requirement for firefighting in KLD :	10260
Water storage tank provided for firefighting in KLD:	100,000
Details of Hydrant Pumps:	3.0 HP
Nearest Fire Station :	Bharuch Fire Station (19.39 km)
Applicability of Off Site Emergency Plan:	Yes

H-4 Details of Fire NOC/Certificate:

H-5 Details of Occupational Health Centre (OHC):

-	
Number of permanent Employee :	40
Number of Contractual person/Labour :	-
Area provided for OHC:	35
Number of First Aid Boxes :	5
Nearest General Hospital :	General Hospital, Bharuch (19.37 km)
Name of Antidotes to be store in plant :	General Methylene Blue, Charcoal etc.

- During meeting, Committee noted that PP presented revised layout plan, revised water balance diagram, revised flue gas emission matrix, details of auto control system for critical process and notarised undertaking for membership of TSDF and CHWIF site. PP presented details of PPE for safety purpose, Risk assessment of hazardous chemicals considering the worst case scenario is carried out and revised EMP.
- Looking to reply presented by PP showing undertaking for obtain membership of common facility as and when production will start, Committee insisted for provisional membership of common facility and technical expert of PP , later on submitted provisional membership of TSDF and CHWIF membership certificate through e-mail.
- Committee found reply submitted by PP was satisfactory.
- **After detailed discussion, Committee unanimously decided to recommend the project to SEIAA,**

**Gujarat for grant of Environment Clearance with the following specific condition:**

**SPECIFIC CONDITIONS:**

1. Project proponent (PP) shall install CEMS [**Continuous Emission Monitoring System**] in line to CPCB directions to all SPCB vide letter no. B-29016/04/06PCI-1/5401 dated 05/02/2014 for effluent discharge and air emission as per pollutants discharge/emission from respective project and an arrangement shall also be done for reflecting the online monitoring results on the company's server, which can be assessable by the GPCB/CPCB on real time basis. [**For Small/Large/Medium (Red Category) & Whichever (Air emission & Effluent discharge) is applicable**].
2. PP shall not manufacture more than five dyes products and three dyes intermediate products from product list, at a time as per details submitted by PP.
3. Close loop solvent recovery system with adequate condenser system shall be provided to recover solvent vapours in such a manner that recovery shall be maximum and recovered solvent shall be reused in the process within premises.
4. PP shall strictly complying each and every conditions which ever is applicable, as mentioned in GPCB circular dated 03/11/2018 for production of dirty dyes intermediate products.
5. Leak Detection and Repair (LDAR) program shall be prepared and implemented as per the CPCB guidelines. LDAR Logbooks shall be maintained.
6. The National Ambient Air Quality Emission Standards issued by the Ministry vide G. S. R. No. 826 (E) dated 16th November, 2009 shall be complied with.
7. National Emission Standards for Organic Chemicals Manufacturing Industry issued by the Ministry vide G. S. R. 608 (E) dated 21/07/2010 and amended from time to time shall be followed.
8. Unit shall have to adhere to the prevailing area specific policies of GPCB with respect to the discharge of pollutants, and shall carry out the project development in accordance & consistence with the same.
9. The project proponent must strictly adhere to the stipulations made by the Gujarat Pollution Control Board, State Government and/or any other statutory authority.
10. All measures shall be taken to avoid soil and ground water contamination within premises.
11. PP shall maintain complete ZLD all the time and there shall be no drainage connection within premises and no waste water discharge outside premises by any means.
12. PP shall not use lignite as fuel for boiler, TFH, HAG etc as per details submitted by PP.

**WATER**

16. Total water requirement for the project shall not exceed 457.50 KLD. Unit shall reuse 262 KLD of treated industrial effluent within premises. Hence, fresh water requirement shall not exceed 195.50 KLD and it shall be met through GIDC supply only. Prior permission from concerned authority shall be obtained for withdrawal of water.
17. The industrial effluent generation from the project shall not exceed 439 KLD.
18. Industrial effluent shall be segregated into two streams (1) High COD and TDS effluent (2) Low COD and TDS effluent and it shall be managed as below.

- **High COD and TDS effluent (254 KLD)**

- 254 KLD, High COD and TDS effluent from process shall be treated in ETP-1 consists of Primary treatment units. Then treated effluent shall be evaporated in in-house MEE and 280 KLD, MEE condensate shall be reused within premises.

- **Low COD and TDS effluent (164 + 21 KLD):**

- 164 KLD, Low COD effluent from process shall be treated in ETP-2 followed by RO plant and 114 KLD, RO permeate shall be reused back in process while 50 KLD, RO reject shall be evaporated in in-house MEE.
- 21 KLD, Low COD effluent from washing and utility shall be treated in ETP-3 followed by RO plant and 18.50 KLD, RO permeate shall be reused back in process while 2 KLD, RO reject shall be evaporated in in-house MEE.

19. Unit shall feed wastewater to in-house MEE only after ensuring content of effluent for COD/VOC so as not to get air borne during evaporation in order to achieve no adverse impacts on Environment and Human Health.

20. Domestic wastewater generation shall not exceed 2 KL/day for proposed project and it shall be treated in STP. It shall not be disposed off through soak pit/ septic tank. Treated sewage shall be utilized for gardening and plantation purpose within premises after achieving on-land discharge norms prescribed by the GPCB.

21. During monsoon season when treated sewage may not be required for the plantation / Gardening / Green belt purpose, it shall be disposed in GIDC drainage.

22. Unit shall provide buffer water storage tank of adequate capacity for storage of treated effluent during any emergency or shutdown of in-house MEE.

### **AIR**

23. Unit shall not exceed fuel consumption and provide APCM and Stack height as mentioned in flue gas matrix.

24. Unit shall provide APCM and stack height as mentioned in process gas matrix.

25. PP shall use approved fuels only as fuel in boilers.

### **HAZARDOUS & SOLID WASTE**

1. All hazardous solid waste shall be managed as mentioned in hazardous waste matrix.

2. The unit shall submit the list of authorized end users of hazardous wastes along with MoU signed with them at least two months in advance prior to the commencement of production. In the absence of potential buyers of these items, the unit shall restrict the production of the respective items.

### **GREENBELT AREA**

3. The PP shall develop green belt within premises (1670 Sq m i.e. 33 % of the total plot area) as per the undertaking submitted before SEAC. Green belt shall be developed with native plant species that are significant and used for the pollution abatement as per the CPCB guidelines. It shall be implemented within 3 years of operation phase in consultation with GPCB.

**13. Safety & Health:**

- a) PP shall obtain PESO permission for the storage and handling of hazardous chemicals.
- b) PP shall provide Occupational Health Centre (OHC) as per the provisions under the Gujarat Factories Rule 68-U.
- c) PP shall obtain fire safety certificate / Fire No-Objection certificate (NOC) from the concerned authority as per the prevailing Rules / Gujarat Fire Prevention and Life Safety Measures Act, 2016.
- d) Unit shall adopt functional operations/process automation system including emergency response to eliminate risk associated with the hazardous processes.
- e) PP shall carry out mock drill within the premises as per the prevailing guidelines of safety and display proper evacuation plan in the manufacturing area in case of any emergency or accident.
- f) PP shall install adequate fire hydrant system with foam trolley attachment within premises and separate storage of water for the same shall be ensured by PP.
- g) PP shall take all the necessary steps for control of storage hazards within premises ensuring incompatibility of storage raw material and ensure the storage keeping safe distance as per the prevailing guidelines of the concerned authority.
- h) PP shall take all the necessary steps for human safety within premises to ensure that no any harm is caused to any worker/employee or labor within premises.
- i) Flame proof electrical fittings shall be provided in the plant premises, wherever applicable.
- j) Unit shall provide water sprinkler to the ammonia storage cylinder.
- k) Unit shall never store drum/barrels/carboys of incompatible material/chemical together.
- l) Unit shall provide safety valve and rupture disc, as well as auto dump or auto quench/, suppress system for nitration vessel safety.
- m) Unit shall provide a spare tank with emergency transfer system and bund/ dyke wall to Oleum storage tank

7.	SIA/GJ/IND2/200631/2021	<b>M/s. New Pack Chemical Industries</b> Plot No: 4919, Sarigam Industrial Estate, Plastic Zone, Ta: Umbergaon, Dist: Valsad-	EC-Reconsideration
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Category of the unit: **5(f)**



**Project status: New**

- Project proponent (PP) submitted online application vide no. SIA/GJ/IND2/200631/2021 on dated 24.03.2021 for obtaining Environmental Clearance.
- Project proponent has submitted Form – 1, Pre-Feasibility Report & Environment Management Plan as per Notification issued by MoEF&CC vide S.O. 1223(E) dated 27th March, 2020 regarding consideration of proposals or activities in respect of Active Pharmaceuticals Ingredients (API) as B2 category.
- This is a new project proposed for manufacturing of synthetic organic chemicals **[API & API Intermediates]** as tabulated below.

Sr No	Name of Product	API / Intermediate	CAS NO	Quantity MT/Month	End Use of Product
Group - 1	Synthetic Drugs Active Pharmaceutical Ingredient (API)				
1	Hydroxy Chloroquine	API	118-42-3	100	Anti- Viral Drugs / Anti Covid-19
2	Hydroxy Chloroquine Sulphate	API	747-36-4		Anti- Viral Drugs / Anti Covid-19
3	Hydroxy Chloroquine Phosphate	API	50-63-5		Anti- Viral Drugs / Anti Covid-19
4	Hydroxy Novaldamine	API	69559-11-1		Anti- Viral Drugs / Anti Covid-19
5	Azithromycin	API	83905-01-5		Anti- Viral Drugs / Anti Covid-19
6	Lumefentrine	API	4803-27-4		Anti-Malarial Drug
7	Finofebrate	API	82186-77-4		Anti-Inflammatory / Cholesterol
8	Chlorhexidine Base	API	55-56-1		Anti-Microbial (Disinfectant & Antiseptic)
9	Nimesulide	API	51803-78-2		Anti Inflammatory
10	Diclofenac Sodium	API	15307-79-6		Anti-Inflammatory / Arthritis pain
11	Tinidazole	API	19387-91-8		Antibiotic/ Anti worms
12	Mebendazole	API	31431-39-7		Anthelmintic or Anti Worm
13	PCMX	API	88-04-0		Anti-Microbial
14	Valproic Acid / 2-Propyl	API	99-66-1		Anticonvulsant drug

	Pentanoic Acid				
15	Sodium Valproate/ Sodium 2-Propyl Pentanoate	API	1069-66-5		Anticonvulsant drug
16	Diethyl Divalproex Sodium	API	76584-7-8		Anti-Epileptic Drug
17	NPBR / N- Propyl Bromide	API	106-94-5		Antiseptics
18	Ferrous Fumarate	API	141-01-5		Used for Anemia
19	Ferrous Gluconate	API	299-29-6		Used for Anemia
20	Ferrous Ascorbate	API	24808-52-4		Used for Anemia
21	Zinc Gluconate	API	04-02-4466		Antibiotic Drug
22	Calcium Gluconate	API	299-28-5		Hypoparathyroidism, Osteoporosis
23	Calcium Propionate	API	4075-81-4		Antifungal Drugs
24	Sodium Propionate	API	137-40-6		Antifungal Drugs
25	Di Calcium Phosphate Di Hydrate	API	7789-77-7		Anti-Convulsant Drug
26	Di Calcium Phosphate Anhydrous	API	7757-93-9		Anti-Convulsant Drug
27	Tri Calcium Phosphate	API	7758-87-4		Anticaking Agent
28	2-Ethoxy Benzamide	API	938-73-8		Anti- Inflammatory Drugs
Group- 2	Pharmaceutical Intermediates				
29	2,7 Di Chloro -9- H Fluorene	Pharmaceutica I Intermediate	7012-16-0	50	Pharmaceutical Intermediate for Lumefentrine, Fluorenone
30	4,7 Di Chloro Quinoline	Pharmaceutica I Intermediate	86-98-6		Pharmaceutical Intermediate for Hydroxy Chloroquine Sulfate

31	N-(2- Phenoxy Phenyl ) Methane Sulfonamide	Pharmaceutica I Intermediate	51765-51-6		Pharmaceutical Intermediate for Nimesulide
32	Para Amino Phenol	Pharmaceutica I Intermediate	123-30-8		Pharmaceutical Intermediate for Paracetamol
33	2 - Methyl 5-Nitro Imidazole	Pharmaceutica I Intermediate	443-48-1		Pharmaceutical Intermediate for Metronidazole
34	4,6 Di Chloro 5- Methoxy Pyrimidine	Pharmaceutica I Intermediate	5018-38-2		Pharmaceutical Intermediate for 2-(4- Acetamidophenylaminocarbonyl) -3- amino-thiophene
35	Meta Amino Acetanilide	Pharmaceutica I Intermediate	102-28-3		Pharmaceutical Intermediate for Diazatricyclodecane
36	4 -Bromo-2 Fluoro Acetanilide	Pharmaceutica I Intermediate	1009-22-9		Pharmaceutical Intermediate for Flurbiprofen
37	2,4,6 Trimethyl Benzoyl Chloride	Pharmaceutica I Intermediate	938-18-1		Pharmaceutical Intermediate for Benzyl Pyrimidine
38	1 Amino 4 Methyl Piperazine	Pharmaceutica I Intermediate	6928-85-4		Pharmaceutical Intermediate for Rifampicin
39	5,6-Dimethoxy-1- Indanone	Pharmaceutica I Intermediate	83-33-0		Pharmaceutical Intermediate for 2,3-dimethoxy-11H-indeno[1,2- b]quinoline-6,10-dicarboxylic acid
40	6-Methoxy-8- Nitroquinoline	Pharmaceutica I Intermediate	85-81-4		Pharmaceutical Intermediate for Primaquine Phosphate
Group- 3	Research & Development Based Products				
41	Research & Development Based Products			0.1	
	TOATL			150.1	

**# Brief Note of Product Profile:**

**1. No of Manufacturing Plants: 2 Nos.**

**2. Brief Note regarding number of Products to be manufactured considering plant capacity :**

**ENDUSE OF PRODUCTS**

Sr. No	Name of Products/APIs/ Intermediates	CAS NO	In Case of Intermediate Stage of API				Said API is used for/End Use of said API
			Type/ Category of Product (API/ Intermediate)	Stage of Intermediate n-1, n-2, etc	Name of API in which Intermediate Used/ End use of said Intermediate	CAS No. (API)	
Group - 1	Synthetic Drugs Active Pharmaceutical Ingredient (API)						
1	Hydroxy Chloroquine	118-42-3	API	–	–	–	Anti- Viral Drugs / Anti Covid-19
2	Hydroxy Chloroquine Sulphate	747-36-4	API	–	–	–	Anti- Viral Drugs / Anti Covid-19
3	Hydroxy Chloroquine Phosphate	50-63-5	API	–	–	–	Anti- Viral Drugs / Anti Covid-19
4	Hydroxy Novaldamine	69559-11-1	API	–	–	–	Anti- Viral Drugs / Anti Covid-19
5	Azithromycin	83905-01-5	API	–	–	–	Anti- Viral Drugs / Anti Covid-19
6	Lumefentrine	4803-27-4	API	–	–	–	Anti-Malarial Drug
7	Fenofibrate	82186-77-4	API	–	–	–	Anti-Inflammatory / Cholesterol
8	Chlorhexidine Base	55-56-1	API	–	–	–	Anti-Microbial (Disinfectant & Antiseptic)
9	Nimesulide	51803-78-2	API	–	–	–	Anti Inflammatory
10	Diclofenac Sodium	15307-79-6	API	–	–	–	Anti-Inflammatory / Arthritis pain
11	Tinidazole	19387-91-8	API	–	–	–	Antibiotic/ Anti worms
12	Mebendazole	31431-39-7	API	–	–	–	Anthelmintic or Anti Worm
13	PCMX	88-04-0	API	–	–	–	Anti-Microbial
14	Valproic Acid/2- Propyl Pentanoic Acid	99-66-1	API	–	–	–	Anticonvulsant
15	Sodium	1069-66-	API	–	–	–	Anticonvulsant

	Valproate/ Sodium 2-Propyl Pentanoate	5					
16	Diethyl Divalproex Sodium	76584-7- 8	API	–	–	–	Anti-Epileptic
17	NPBR / N- Propyl Bromide	106-94-5	API	–	–	–	Antiseptics
18	Ferrous Fumarate	141-01-5	API	–	–	–	Used for Anemia
19	Ferrous Gluconate	299-29-6	API	–	–	–	Used for Anemia
20	Ferrous Ascorbate	24808- 52-4	API	–	–	–	Used for Anemia
21	Zinc Gluconate	04-02- 4466	API	–	–	–	Antibiotic Drug
22	Calcium Gluconate	299-28-5	API	–	–	–	Hypoparathyroidism, Osteoporosis
23	Calcium Propionate	4075-81- 4	API	–	–	–	Antifungal Drugs
24	Sodium Propionate	137-40-6	API	–	–	–	Antifungal Drugs
25	Di Calcium Phosphate Di Hydrate	7789-77- 7	API	–	–	–	Anti-Convulsant Drug
26	Di Calcium Phosphate Anhydrous	7757-93- 9	API	–	–	–	Anti-Convulsant Drug
27	Tri Calcium Phosphate	7758-87- 4	API	–	–	–	Anticaking Agent
28	2-Ethoxy Benzamide	938-73-8	API	–	–	–	Anti Inflammatory
Group- 2	Pharmaceutical Intermediates						
29	2,7 Di Chloro -9- H Fluorene	7012-16- 0	Pharmac eutical Intermedi ate	n-1	Lumefentr ine	82186- 77-4	Anti-Malarial Drug
				n-3	Fluorenon e	486-25-9	Anti-Malarial Drug
30	4,7 Di Chloro Quinoline	86-98-6	Pharmac eutical Intermedi ate	n-1	Chloroqui ne Phosphat e	54-05-7	Anti-Malarial
31	N-(2- Phenoxy Phenyl ) Methane Sulfonamide	51765- 51-6	Pharmac eutical Intermedi ate	n-3	Nimesulid e	51803- 78-2	Anti-Inflammatory
32	Para Amino Phenol	123-30-8	Pharmac eutical	n-1	Paraceta mol	103-90-2	Anti-Malarial

			Intermedi ate				
33	2 - Methyl 5-Nitro Imidazole	443-48-1	Pharmac eutical Intermedi ate	n-1	Metronida zole	443-48-1	Antibiotic and Antiprotozoal Drug
34	4,6 Di Chloro 5- Methoxy Pyrimidine	5018-38- 2	Pharmac eutical Intermedi ate	n-4	2-(4- Acetamid ophenyla minocarb onyl)-3- amino- thiophene	--	Anti-Cancer Drug
35	Meta Amino Acetanilide	102-28-3	Pharmac eutical Intermedi ate	n-3	Diazatricy clodecane	280-57-9	GPR119 Receptor/ Anti-Inflammatory
36	4 -Bromo-2 Fluoro Acetanilide	1009-22- 9	Pharmac eutical Intermedi ate	n-2	Flurbiprof en	5104-49- 4	Anti-Inflammatory
37	2,4,6 Trimethyl Benzoyl Chloride	938-18-1	Pharmac eutical Intermedi ate	n-2	Benzyl Pyrimidin e	289-95-2	Benzyl Pyrimidine
38	1 Amino 4 Methyl Piperazine	6928-85- 4	Pharmac eutical Intermedi ate	n-2	Rifampici n	13292- 46-1	Anti-tuberculosis
39	5,6-Dimethoxy-1- Indanone	83-33-0	Pharmac eutical Intermedi ate	n-1	Donepezil Hydrochlo ride	120011- 70-3	Alzheimer's Disease
40	6-Methoxy-8- Nitroquinoline	85-81-4	Pharmac eutical Intermedi ate	n-2	Primaquin e Phosphat e	63-45-6	Anti Malarial Drug
Group- 3	Research & Development Based Products						
41	Research & Development Based Products						

- The project falls under Category B2 of project activity 5(f) as per the schedule of EIA Notification 2006 and amendment dated 27<sup>th</sup> March, 2020.
- PP submitted an undertaking ensuring proposed product profile is in line with MoEF&CC's Notification vide S.O. 1223 (E) dated 27/03/2020 in respect of Active Pharmaceutical Ingredients (API) as category B2

projects. Undertaking as proposal of said product are eligible to consider under B2 category as per the notification of MoEF&CC dated 27.03.2020

- The proposal was considered in the SEAC video conference meeting dated 18.06.2021.
- Salient features of the project including Water, Air and Hazardous waste management are submitted.
- During the meeting dated 18.06.2021, the project was appraised based on the information furnished in Form – 1, Pre-Feasibility Report, Environment Management Plan and details submitted by e-mail.
- Project proponent (PP) and their Technical Expert from M/s Revu Consultancy LLP remain present during video conference meeting.
- This is a Greenfield project proposed for manufacturing of synthetic organic chemicals [**API& API Intermediate**] at GIDC Sarigam. Total plot area is 1864 Sq. m.
- Committee deliberated on Product profile, Layout plan, Storage details, Process safety, Fire safety, water balance & waste water management, Flue gas and process gas emission & Air Pollution Control System, Hazardous waste matrix, EMP, CER, Green belt, etc.
- Committee insisted to provide (1) SOP for handling & storage of bromine with its safety measures and (2) Membership of nearby TSDF & CHWIF mentioning capacities as per GPCB circular dated: 08.01.2020 instead of sending the hazardous waste to TSDF & CHWIF of Kutch region.
- **After detailed discussion, Committee unanimously decided to consider the proposal in one of the upcoming SEAC meeting only after satisfactory submission of following details:**
  1. SOP for handling & storage of bromine with its safety measures.
  2. Membership of nearby TSDF & CHWIF mentioning capacities as per GPCB circular dated: 08.01.2020 instead of sending the hazardous waste to TSDF & CHWIF of Kutch region.
- PP submitted the reply of the said points of meeting dated 18.06.2021 along with other supporting documents.
- This proposal is reconsidered in SEAC meeting dated **05.08.2021**. PP along with their technical expert/consultant from M/s Revu Consultancy LLP remains present in the meeting and made presentation before committee.
- PP submitted revised salient features of water, air and Hazardous waste management are as under,

Sr. no.	Particulars	Details														
A-1	Total cost of Proposed Project (Rs. in Crores): <table border="1" style="margin-left: auto; margin-right: auto;"><tr><td>Total Project</td></tr><tr><td>8.8 Crore</td></tr></table> Break-up of proposed project Cost: <table border="1" style="margin-left: auto; margin-right: auto;"><thead> <tr> <th>Details</th> <th>Project Cost,,(Rs. In Crores)</th> </tr> </thead><tbody> <tr><td>Land &amp; Building</td><td>3.0</td></tr> <tr><td>Plant and Machineries</td><td>2.0</td></tr> <tr><td>Other Miscellaneous</td><td>1.0</td></tr> <tr><td>EMP</td><td>2.8</td></tr> <tr><td>Total</td><td>8.8</td></tr> </tbody></table>	Total Project	8.8 Crore	Details	Project Cost,,(Rs. In Crores)	Land & Building	3.0	Plant and Machineries	2.0	Other Miscellaneous	1.0	EMP	2.8	Total	8.8	
Total Project																
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Details	Project Cost,,(Rs. In Crores)															
Land & Building	3.0															
Plant and Machineries	2.0															
Other Miscellaneous	1.0															
EMP	2.8															
Total	8.8															
A-2	Details of Environmental Management Plan (EMP)	As below:														

Sr. No	Unit	Details	Capital Cost (INR in crore)	Recurring cost		
				Operating Cost (crore/Annum)	Maintenance Cost (crore/Annum)	Total Recurring Cost (crore/Annum)
1	Air Pollution Control	Cost of APCM, stack	0.45	0.100	0.030	0.130
2	Water Pollution Control	Membership cost of CETP, ETP, MEE	1.05	1.130	0.030	1.160
4	Solid and Hazardous Waste Management	Membership cost of TSDF, CHWIF etc.	0.065	0.184	0.003	0.135
5	Fire & Safety	Cost of PPE, Fire fighting equipment, Fire hydrant system, SCADA based automation system	0.89	0.147	0.004	0.099
6	AWH Monitoring	pH, COD apparatus, BOD Incubator, RDS, TDS meter, Flow Meter	0.04	0.098	0.004	0.101
7	Occupational Health	OHC, Medical Examination, Insurance of employees	0.1	0.010	0.005	0.015
8	Green belt development	Plantation	0.02	0.013	0.005	0.017
9	CER	-	0.18	0.000	0.000	0.000
Total			2.8	1.68	0.079	1.65

#### Summary

Cost of Project in Crores per Annum:	8.8
EMP Capital Cost in Crores per Annum and Percentage:	2.8 (31.8%)
EMP Recurring Cost in Crores per Annum and Percentage:	1.68 (19%)

A-3	<p>Details of CER as per OM dated 01/05/2018 (In case of project falls under CPA/SPA, CER fund allocation to be at least 1.5 times the slabs given in the OM dated 01.05.2018 for SPA and 2 times for CPA in case of Environmental Clearance as per the mechanism published vide MoEF &amp; CC's OM vide 31.10.2019.)</p> <table border="1"> <thead> <tr> <th>% as per the OM</th> <th>Rs. in Crores</th> </tr> </thead> <tbody> <tr> <td>2.0 %</td> <td>0.18 Crores</td> </tr> </tbody> </table>	% as per the OM	Rs. in Crores	2.0 %	0.18 Crores
% as per the OM	Rs. in Crores				
2.0 %	0.18 Crores				

#### Brief note on proposed activities:

Sr. No.	Activity	Village	Cost in Rs. (Lakhs)			Time Schedule
			Amount	Year-1	Year-2	
1.	Donation of equipments in Primary Health Center • Two way adjustable bed (4 Nos.) - Rs. 25,000 each • Fogging Machine (3 Nos.) - Rs. 30,000 each	Sarigam/Manda	2.2	1.1	1.1	2 Years



2.	Company will construct a place which will provide drinking water having RO system to remove TDS in Drinking Water at Sarigam and Bhilad  20 KLD (2 Nos.) - Rs. 3,50,000 each	Sarigam and Bhilad	7	3.5	3.5
3.	Plantation activity with tree guard (300 saplings)	Bhilad	1.5	1.0	0.5
4.	Solar street light installation (25 Nos.) - Rs. 10,000 each	Sarigam/Manda	2.5	2.0	0.5
5.	Contribution in providing Rain water harvesting system - 8 Nos. of RWH structures (Rs. 60,000 each)	Sarigam/Bhilad	4.8	3.0	1.8
TOTAL			Rs. 18 Lakh		

**B Land / Plot ownership details:**

B-1	Plot area	<table border="1"> <tr> <td>Total Plot area</td> </tr> <tr> <td>1864 Sq. m.</td> </tr> </table>	Total Plot area	1864 Sq. m.
Total Plot area				
1864 Sq. m.				

B-2 Brief note on Area adequacy in line to proposed project activities:  
 ➤ Total Area of premises is 1864 Sq.m. land, which is adequate for the proposed production. Entire process area will cover 318 Sq.m of land. Other land requirement is for office, utility area, storage of raw materials, solvent and finish products. Land requirement for the project including its break up for various purposes is provided in PFR. Layout plan clearly demarcating all activities is provided in PFR.

B-3	Green belt area	<table border="1"> <tr> <td></td> <td>Total (Sq. meter)</td> </tr> <tr> <td>Area in Sq. meter</td> <td>615</td> </tr> <tr> <td>% of total area</td> <td>33 %</td> </tr> </table>		Total (Sq. meter)	Area in Sq. meter	615	% of total area	33 %
	Total (Sq. meter)							
Area in Sq. meter	615							
% of total area	33 %							

**C Employment generation**

	<table border="1"> <tr> <td>Total</td> </tr> <tr> <td>40</td> </tr> </table>	Total	40
Total			
40			

**D WATER**

D-1 Source of Water Supply  
 (GIDC, Bore well, Surface water, Tanker supply etc...)  
 ➤ GIDC Water Supply

Status of permission from the concern authority.  
 ➤ Will be applied for required permission

D-2 Water consumption (KLD)

Category	Quantity KLD	Remarks
(A) Domestic	2.5	
(B) Gardening	2.5	
(C) Industrial		
Process	22.0	
Washing (Floor/ Vessel)	1.0	
Boiler	10.0	
Cooling	10.0	
Others (Scrubbing)	2.0	
Industrial Total	45.0	
Grand Total (A + B + C)	50.0	

Brief Note on worst case scenario for water consumption:

- At Worst case scenario, maximum water will be used in Product No. 2 (Hydroxy Chloroquine Sulphate) in Group -1 (API Products) + Product No. 40 (6-Methoxy 8-Nitro Quinoline) in Group -2 (API Intermediates).

Summary of water requirement	Quantity (KLD)	Remarks	
Total water requirement for the project (A)	50.0		
Quantity to be recycled (B)	2.0	Forwarded to STP reused for Gardening purpose.	
Total fresh water requirement (C)	48.0		
Ensure Total water requirement = Fresh water + Recycled water i.e. A = B + C 50 KLD = 48 KLD + 2 KLD			
Reuse/Recycle details (KLD) with feasibility. [Source of reuse & application area]			
Source of waste water for reuse in KLD (From where it is coming)	Application area with quantity in KLD (Where it is used)	Characteristics of waste water to be reused (COD, BOD, TDS etc.)	Remarks regarding feasibility to reuse
2.0 KLD Domestic Waste Water	2.0 KLD reused for Gardening purpose	TDS : 1800 mg/L COD : 25 mg/L BOD : 15 mg/L	Mention quantity can be easily use for gardening purpose without any adverse impact.
In case of no reuse/recycle of waste water, Give brief note on justification as why no reuse/recycle.			
➤ Not Applicable			

D-3

Waste water generation (KLD)

Category	Quantity KLD	Remarks
(A) Domestic	2.0	Forwarded to STP reused for Gardening purposes
(B) Gardening	--	
Process	24.0	Treated in ETP-1 (Primary) followed by In-House MEE.
Boiler	2.0	Forwarded to ETP
Cooling	2.0	
Washing	1.0	Forwarded to ETP
Scrubbing	2.5	Sold out as By Product
Total Industrial	31.5	
Grand Total (A+B+C)	33.5	

Brief Note on worst case scenario for waste water generation (Qualitative and Quantitative):

➤ At Worst case scenario, maximum Wastewater generation will be used in Product No. 2 (Hydroxy Chloroquine Sulphate) in Group -1 (API Products) + Product No. 40 (6-Methoxy 8-Nitro Quinoline) in Group - 2 (API Intermediates).

Brief justification in case of no process effluent generation or no industrial effluent generation or no high concentration effluent generation from proposed project (Whichever is applicable).

➤ Not applicable in our case

D4 Mode of Disposal & Final meeting point

Domestic :	<ul style="list-style-type: none"> <li>2.0 KLD domestic waste water will be treated in STP &amp; treated waste water shall be reused for Gardening</li> </ul>
Industrial :	<ul style="list-style-type: none"> <li>2.5 KLD Waste water from Scrubbing System which is mainly Hazardous Waste / By Products from respective gases such as HCl, HBr, and SO<sub>2</sub> etc. will be sold to actual End users under Rule-9.</li> <li>Concentrated Wastewater Stream-1: 24.0 KLD Process Effluent will be treated in ETP-1 having Primary Treatment. Treated water will be sent to MEE (Multi Effect Evaporator system).</li> <li>22.0 KLD Condensate from MEE will be forwarded to ETP-2 (Primary, Secondary &amp; Tertiary System) whereby 5.0 KLD Dilute Effluent stream mainly coming from Boiler, Cooling Tower, and Washing etc. is mixed up at ETP -2 for further treatment.</li> <li>27.0 KLD Total Wastewater stream (22.0 KLD MEE Condensate + 5.0 KLD from Boiler, Cooling Tower &amp; Washing) will be treated in ETP-2 having Primary, Secondary and Tertiary treatment system.</li> <li>27.0 KLD Final Treated Wastewater as total confirming the C-ETP Norms will be disposed of to Sarigam C-ETP (Sarigam Clean Initiative) for further treatment and disposal to Marine discharge system leads to Deep Sea at West Cost of Arabian Sea.</li> </ul>

Clearly mention about final disposal

D-5 Treatment facilities

For Domestic waste water:

Capacity of STP : 10KLD

For Industrial waste water: Treatment facility within premises with capacity

[In-house ETP (Primary, Secondary, Tertiary), MEE, Stripper, Spray Dryer, STP etc.

Treatment scheme including segregation at source. (Give Characteristics of each stream i.e. COD, BOD, TDS etc.) In case of stream segregation, Separate ETP (ETP-1, ETP-2....) for each stream shall be proposed.

- Adequate In-house ETP (Primary, Secondary & Tertiary), MEE will be provided
- Capacity of ETP – 50 KLD
- MEE – 1.0 m<sup>3</sup>/hr

**Treatment Scheme :-**

Process effluent shall be collected in Collection cum Neutralization Tank-1(CNT-01) where Alkali dosing shall be done from Alkali Dosing Tank (ALDT-01) to maintain pH of the effluent. The mixer is provided to keep solids in suspension. Then after, neutral wastewater shall be pumped to Flash Mixer-01 (FM-01) where Alum and Polyelectrolyte shall be dosed from Alum Dosing Tank (ADT-01) and Polyelectrolyte Dosing Tank (PEDT-01) respectively by gravity. Then after, coagulated wastewater shall be settled in Primary Lamella (PST-01). Clear supernatant from PST-01 shall be collected in Storage Tank (ST-01).

Treated water will be sent to MEE (Multi Effect Evaporator system) & Condensate from MEE will be forwarded to ETP-2 (Primary, Secondary & Tertiary System) whereby Dilute Effluent stream mainly coming from Boiler, Cooling Tower, and Washing etc. is mixed up at ETP -2 for further treatment.

Total Wastewater stream (MEE Condensate + Boiler, Cooling Tower & Washing) will be transferred in Secondary Lamella and Aeration Treatment and finally transferred in Sand Filter(PSF-01) to remove left out TSS and Activated Carbon Filter (ACF-01) for final effluent polishing. After this treatment, effluent shall be collected in Treated wastewater Tank (TET-01).

Finally 27.0 KLD Treated Wastewater as total confirming the C-ETP Norms will be disposed of to Sarigam C-ETP (Sarigam Clean Initiative) for further treatment and disposal to Marine discharge system leads to Deep Sea at West Cost of Arabian Sea.

Sludge settled in PST-01 and excess sludge (100Kg) from SST-01 shall be collected in Sludge Sumps (SSs-01) then sludge shall be pumped to Filter Press (FP-01) for sludge dewatering. Then, dewatered sludge shall be collected in Sludge Drying Bed (SDBs-01-A/C) for further drying. Then, dried sludge shall be stored in HWSA and then finally disposal of to TSDF. Leachate from FP-01, SDBs-01-A/D and backwash from PSF-01 and ACF-01 shall be sent back to CNT-01 for further treatment.

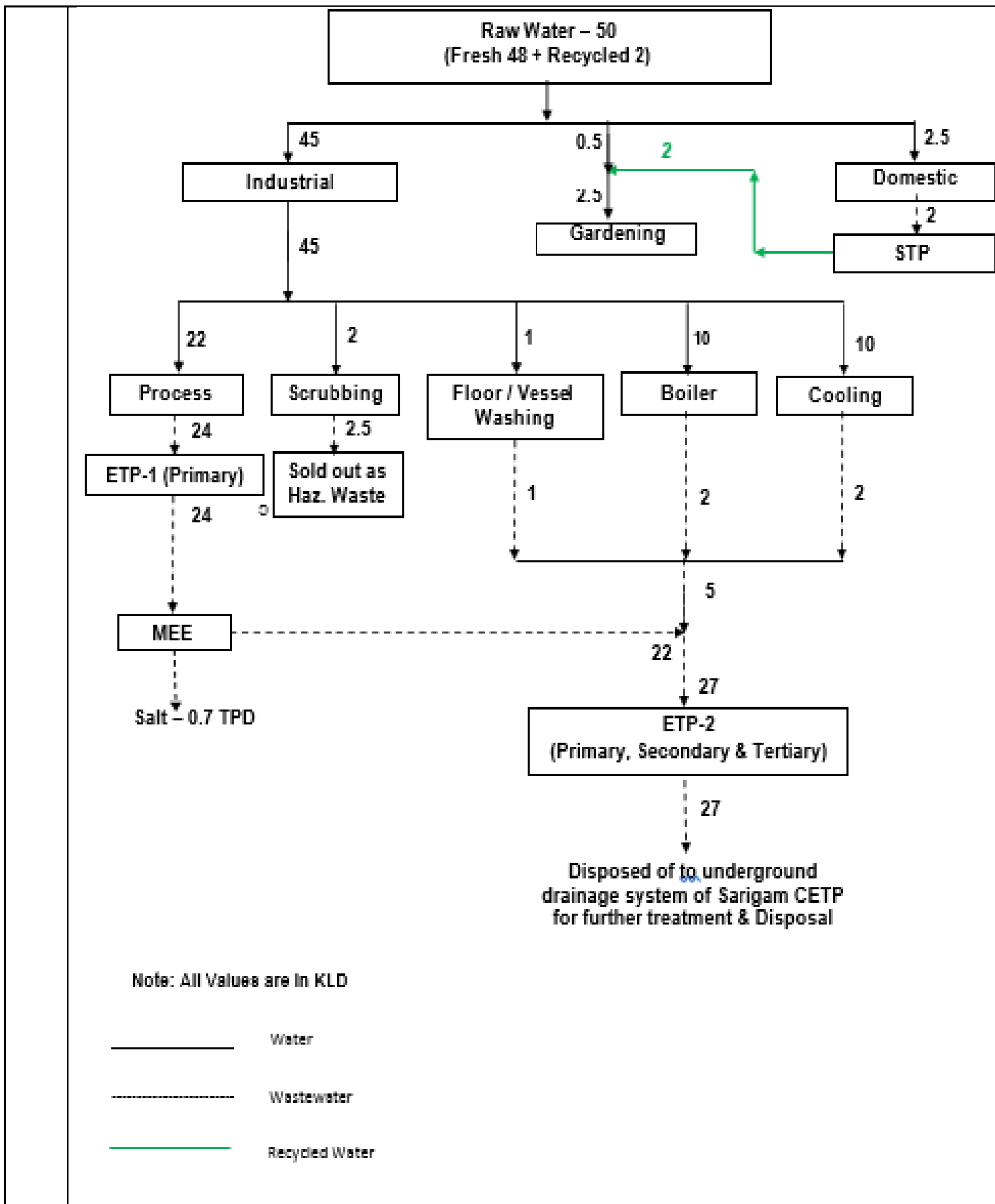
• **Expected Stream wise Characteristics of effluent :-**

Sr. No	Parameter	Untreated/ Raw Wastewater	After Primary Treatment	MEE Condensate	After Tertiary Treatment	Norms C- ETP Sarigam
1	pH	4.0-5.0	6.5-7.5	6.5-7.5	6.5-7.5	6.5-8.5
2	COD (mg/L)	25000	21000	3000	800	1000
3	BOD (mg/L)	3000	2500	375	80	400
4	TDS (mg/L)	45700	40000	200	1500	-

**Note: (In case of CETP discharge) :**

Management of waste water keeping in view direction under section 18 (1) (b) of the Water (Prevention and Control of Pollution) act,

1974 issued by CPCB regarding compliance of CETP.	
<ul style="list-style-type: none"> <li>➤ Treated effluent will be sent to Sarigam C-ETP (Sarigam Clean Initiative) for further treatment and disposal to Marine Discharge System leads to Deep Sea at West Cost of Arabian Sea.</li> </ul>	
<b><u>Brief note on adequacy of ZLD (In case of Zero Liquid Discharge):</u></b>	
<ul style="list-style-type: none"> <li>➤ Not Applicable .</li> <li>➤ Treated effluent will be sent to Sarigam C-ETP (Sarigam Clean Initiative) for further treatment and disposal to Marine discharge system leads to Deep Sea at West Cost of Arabian Sea.</li> </ul>	
D-6	In case of Common facility (CF) i.e. CETP, Common Spray dryer, Common MEE, CHWIF etc. Name of Common facility (CF) (For waste water treatment)
	➤ Treated effluent will be sent to Sarigam C-ETP (Sarigam Clean Initiative) for further treatment and disposal to Marine discharge system leads to Deep Sea at West Cost of Arabian Sea.
	Membership of Common facility (CF) mentioning total capacity, consented quantity, occupied capacity and spare capacity and norms of acceptance of effluent from member units in-line with the direction given by GPCB vide Letter No. GPCB/P-1/8-G (5)/550706 dated 08/01/2020.
D-7	Simplified water balance diagram with reuse / recycle of waste water



E | AIR

E-1	Brief Note on fuel based Heat energy requirement and worst case scenario thereof:		
	SR. NO.	NAME OF FUEL	TOTAL PROPOSED QUANTITY
	1.	Natural Gas	4240 SCM/Day
	2	Diesel	250 Liter / D (1.7 Liter / hr)
	Power Requirement		
	Sr. No.	SOURCE OF POWER	TOTAL PROPOSED QUANTITY
1	DGVCL	200 KVA	
2	D G Set (in emergency only)	250 KVA	

E-2	<p>Flue gas emission details</p> <p>No. of Boilers/TFH/Furnaces/DG sets etc. with capacities viz. TPH, Kcal/hr, MT/hr, KVA etc.</p> <p>(In case of Project located within CPA/SPA , APCM shall be in line to the mechanism published in the MOEFCC's OM vide dated 31.10.2019)</p>
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Sr. no.	Source of Emission With Capacity	Stack Height (meter)	Type of Fuel	Quantity of Fuel MT/Day	Type of emissions i.e. Air Pollutants	Air Pollution Control Measures (APCM)
1	Steam Boiler (Capacity: 2.0 MT/hr.)x 1Nos	30	Natural Gas	3840.0 SCM/Day	$PM_{10} \leq 150$ $mg/Nm^3$ $SO_2 \leq 100$ $ppm$ $NO_x \leq 50$ $ppm$	Adequate Stack Height
2	Thermo Pack (Capacity: 1.0 Lac Kilo Cal/ hr. )		Natural Gas	200.0 SCM/Day		
3	Gas Based Hot Air Generators (Capacity: 2,00,000 Kcal/hr.)		Natural Gas	200.0 SCM/Day		
3	D. G. Set -2 Stand By (Capacity : 250 KVA)	11	HSD	250 Liters/day		Adequate Stack Height

E-3	Process gas i.e. Type of pollutant gases (SO <sub>2</sub> , HCl, NH <sub>3</sub> , Cl <sub>2</sub> , NO <sub>x</sub> etc.)
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Sr. no.	Specific Source of emission (Name of the Product & Process)	Type of emission	Stack/Vent Height (meter)	Air Pollution Control Measures (APCM)
1	Reaction Vessel (2-Ethoxy Benzamide)	NH <sub>3</sub>	11 meters	Two Stage Water Scrubber
2	Reaction Vessel (Nimesulide)	NO <sub>x</sub>	11 meters	Two Stage Caustic Scrubber
3	Reaction Vessel (5,6-Dimethoxy 1-Indanone, 2,4,6-Trimethyl Benzoyl Chloride)	HCl	11 meters	Two Stage Water Scrubber
4	Reaction Vessel (6-Methoxy 8-Nitro Quinoline, 2,4,6-Trimethyl Benzoyl Chloride)	SO <sub>2</sub>	11 meters	Two Stage Alkali Scrubber

Note:

- Details of gaseous raw materials used in proposed project

E-4

Fugitive emission details with its mitigation measures.

Following measures will be adopted to prevent and control fugitive emissions...

1. Airborne dust at all transfers operations/ points will be controlled either by spraying water or providing enclosures.
2. Adequate ventilation will be provided.
3. Regular maintenance of valves, pumps, flanges, joints and other equipment will be done to prevent leakages and thus minimizing the fugitive emissions of VOCs.
4. Entire process will be carried out in the closed reactors with proper maintenance of pressure and temperature.
5. Periodic monitoring of work area will be carried out to check the fugitive emission.
6. To eliminate chances of leakages from glands of pumps, mechanical seal will be provided at all solvent pumps.
7. Stand by pumps will be provided on all scrubbers. Besides, scrubbers will be equipped with on-line pH meter with hooter system for better operational control.
8. Close feeding system will be provided for centrifuges. Centrifuge and filtrate tank vents will be connected to vent chillers.
9. Minimum number of flanges, joints and valves in pipelines.
10. Regular inspection of floating roof seals and proper preventive maintenance of roofs and seals for tanks.
11. Fugitive emission over reactors, formulation areas, centrifuges, chemical loading, transfer area will be collected through hoods and ducts by induced draft and controlled by scrubber/ dust collector.
12. Dedicated scrubber will be provided are used for fugitive emissions to control.
13. For dust emissions bag filter will be provided.

Enclosures to chemical storage area, collection of emission from loading of raw materials in particular solvents through hoods and ducts by induced draft, and control by scrubber / dust collector to be ensured.



F	<p>Hazardous waste</p> <p>(As per the Hazardous and Other Wastes (Management and Transboundary Movement) Rules 2016.</p> <p>Note:</p> <ul style="list-style-type: none"> <li>➤ Priorities for HW Management: Pre-processing, Co-Processing, Reuse/Recycle within premises, Sell out to actual users having Rule-9 permission, TSDF/CHWIF.</li> <li>➤ Quantification of hazardous waste shall be based on mass balance and calculations shall be incorporated in EMP details separately.</li> <li>➤ Disposal to scrap vendors/vendors/traders is not allowed</li> </ul>
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F-1	Hazardous waste management matrix
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Sr. No	Name of Waste	Source of Generation	Cat No.	Proposed Quantity (MT/Ann um)	Disposal Method
1	Discarded Containers / Bags / Liners	Storage & handling of Raw Materials	Sch-I/ 33.1	20.0	Collection, Storage, Transportation, Decontamination & Disposal by selling to registered recycler.
2	Used / Spent Oil	Equipment & Machineries	Sch-I/ 5.1	15.0	Collection, Storage, Transportation, Decontamination & Disposal by selling to registered recycler.
3	Process Waste	Process (Hydroxy Novaldiamine, Lumefantrine, Ferrous Gluconate, Zinc Gluconate, Calcium Propionate, 4,7-Dichloro Quinoline)	Sch-I/ 28.1	6334.0	Collection, Storage, Transportation and disposal at nearest CHWIF.
4	Spent Carbon	Process (Hydroxy Chloroquine Phosphate, Hydroxy Chloroquine Sulphate, Azithromycin, Nimesulide, Diclofenac Sodium, Tinidazole, Mebendazole, Meta Amino Acetanilide, 2-Bromo 4-Fluro Acetanilide, 5,6- Dimethoxy 1-Indanone, 2-Ethoxy Benzamide, 2- Methyl 5-Nitro imidazole)	Sch-/28.1	336.0	Collection, Storage, Transportation and sent for co-processing in cement industries or nearest incineration site. (In case of non-operation of co-processing facility).
5	Distillation Residue	Process (Hydroxy Chloroquine Phosphate, Hydroxy Chloroquine Sulphate, Hydroxy Novaldamine, Azithromycin, Fenofibrate, Chlorhexidine Base, Nimesulide, Para Chloro Meta Xylenol, -(2-Phenoxy Phenyl) Methane Sulfonamide, 4,6-Di Chloro 5-Methoxy Pyrimidine, Meta Amino Acetanilide, 2-Bromo 4-Fluro Acetanilide, 2,4,6 Trimethyl Benzoyl Chloride, 5,6- Dimethoxy 1-Indanone, 6-Methoxy 8-Nitro	Sch-I/ 36.1	1151.0	Collection, Storage, Transportation and sent for co-processing in cement industries or nearest incineration site.

		Quinoline)			
6	Spent Catalyst	Process (2- Methyl 5-Nitro imidazole)	Sch-I/ 28.1	6.0	Collection, Storage, Transportation & Disposal at Co-Processing or Common Incineration Site.
7	Spent Solvent	Process (Hydroxy Chloroquine, Hydroxy Chloroquine Phosphate, Hydroxy Chloroquine Sulphate, Hydroxy Novaldamine, Azithromycin, Lumefentrine, Fenofibrate, Chlorhexidine Base, Nimesulide, Diclofenac Sodium, Tinidazole, Mebendazole, Ferrous Ascorbate, 2,7-Dichloro-9-H, 4,7-Dichloro Quinoline Fluorene, N-(2-Phenoxy Phenyl) Methane Sulfonamide, 4,6-Di Chloro 5-Methoxy Pyrimidine, 2-Bromo 4-Fluro Acetanilide, 5,6- Dimethoxy 1-Indanone, 6-Methoxy 8-Nitro Quinoline, 2-Methyl 5-Nitro imidazole)	Sch-I/ 28.6	21,000	Collection, Storage, Management & Recovery within the premises and will reuse in plant premises.
8	Spent Sulphuric Acid	Process (N-Propyl Bromide, 6-Methoxy 8-Nitro Quinoline, 2-Methyl-5-Nitro Imidazole)	-	1508.0	Collection, Storage, Transportation & Disposal by selling to authorised end user registered under Rule-9.
9	Hydrochloric Acid Soln (30%)	Scrubber	-	1482.0	Collection, Storage, Transportation & Disposal by selling to authorised end user registered under Rule-9.
10	Ammonium Phosphate	Process (Hydroxy Chloroquine)	Sch-I/ 28.1	4560.0	Collection, Storage, Transportation & Disposal by selling to authorize end user registered under Rule-9.
11	Mono Ethyl Glycol	Process (Hydroxy Novaldamine)	Sch-I/ 28.1	120.0	Collection, Storage, Transportation & Disposal by selling to authorized end user registered under Rule-9.
12	20-25% Aluminium Chloride Soln	Process (Lumefentrine)	Sch-/28.1	3360.0	Collection, Storage, Transportation & Disposal by selling to authorized end user registered under Rule-9.
13	Sodium Chloride Salt	Process (Chlorhexidine Base, Divalproex Sodium)	Sch-I/ 28.1	1004.0	Collection, Storage, Transportation and disposal at common nearest TSDF site

14	20 % Sodium Sulphite Solution	Scrubber	Sch-I/ 28.1	4902.00	Collection, Storage, Transportation & Disposal by selling to authorized end user registered under Rule-9.
15	Aluminium Hydroxide	Process (Diclofenac Sodium, Mebendazole)	Sch-/ 28.1	684.0	Collection, Storage, Transportation & Disposal by selling to authorized end user registered under Rule-9.
16	Sodium Sulphate	Process (Valproic Acid)	Sch-I/ 28.1	7476.0	Collection, Storage, Transportation & Disposal by selling to authorized end user registered under Rule-9.
17	Sodium Bromide	Process (4-Bromo 2-Fluoro Acetanilide)	Sch-I/ 28.1	2700.0	Collection, Storage, Transportation & Disposal by selling to authorized end user registered under Rule-9.
18	Ammonium Sulphate	Process (Ferrous Fumarate, Zinc Gluconate)	Sch-I/ 28.1	3288.0	Collection, Storage, Transportation & Disposal by selling to authorized end user registered under Rule-9.
19	20% Liquid Ammonia	Scrubber	Sch-I/ 28.1	2069.0	Collection, Storage, Transportation & Disposal by selling to authorized end user registered under Rule-9.
20	Salt from Evaporator	MEE	-	260	Collection, Storage, Transportation and disposal at common nearest TSDF.
21	ETP Sludge	ETP	Sch-I/ 35.3	150	Collection, Storage, Transportation and disposal at common nearest TSDF.

F-2	<p>Membership details of TSDF, CHWIF etc. (For HW management)</p> <p>➤ Industry is obtained NOC from TSDF site of BEIL, Dahej on dated 21/07/21 and CHWIF of BEIL on dated 21/07/21.</p>				
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<p>Details of Membership letter no. &amp; Date with spare capacity of the Common Facility.</p> <p>➤ Treated effluent will be sent to Common Treatment Facility of Detox India Private Limited Ankleshwar for further treatment. Unit has applied for membership.</p>					
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F-3	<p>Details of Non-Hazardous waste &amp; its disposal (MSW and others) : Not Applicable</p>				
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Sr. No.	Type/Name of Other wastes	Specific Source of generation (Name of the Activity, Product etc.)	Quantity (MT/Annum)	Management of Wastes
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1	STP Sludge	STP	0.2	Used as manure in Greenbelt within premises			
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G	Solvent management, VOC emissions etc.						
G-1	Brief Note on types of solvents, Details of Solvent recovery, % recovery, reuse of recovered Solvents etc.						
Product No.	Sr. No	Raw Materials	Total Input Quantity (Kg)	Qty of Solvent Recovered (Kg)	Qty of Solvent Losses (Kg)	% Recovery	% Loss
Group 1		Synthetic Drugs					
	1.1	Hydroxy Chloroquine					
	1	Methanol	3088	2938	150	95.1	4.9
		Methylene Dichloride	6147	5840	307	95.0	5.0
	1.2	Hydroxy Chloroquine Sulphate					
	1	Methanol	1700	1530	170	90.0	10.0
	2	Methylene Dichloride	2430	2220	210	91.4	8.6
	3	Ethyl Acetate	1880	1780	100	94.7	5.3
	1.3	Hydroxy Chloroquine Phosphate					
	1	Methanol	1700	1530	170	90.0	10.0
	2	Ethyl Acetate	1126	1073	53	95.3	4.7
	3	Methylene Dichloride	2497	2251	246	90.1	9.9
	1.4	Hydroxy Novaldiamine					
	1	Toluene	2000	1800	200	90.0	10.0
	2	Methylene Dichloride	3000	2550	450	85.0	15.0
	3	Methanol	2100	1800	300	85.7	14.3
	1.5	Azithromycin					
	1	Acetone	5000	4800	200	96.0	4.0
	1.6	Lumefentrine					
	1	Methanol	21410	18750	2660	87.6	12.4
	2	Di Methyl Formamide	2200	1870	330	85.0	15.0
	2	Ethyl Acetate	745	635	110	85.2	14.8
	3	N-Butanol	1630	1550	80	95.1	4.9
		Methylene Dichloride	5213	4453	760	85.4	14.6
	1.7	Fenofibrate					
	1	Acetone	3000	2800	200	93.3	6.7
	2	Isopropyl Alcohol	1500	1400	100	93.3	6.7
	1.8	Chlorhexidine Base					
	1	Butanol	11640	10480	1160	90.0	10.0
	2	Methanol	4790	4310	480	90.0	10.0
	1.9	Nimesulide					
	1	Methanol	2000	1910	90	95.5	4.5

	2	Toluene	3500	3410	90	97.4	2.6
	2.0	Diclofenac Sodium					
	1	Toluene	3030	2880	150	95.0	5.0
	2.1	Tinidazole					
	1	Benzene	1130	1070	60	94.7	5.3
	2	Methanol	850	800	50	94.1	5.9
	2.2	Mebendazole					
	1	Methanol	3060	2750	310	89.9	10.1
	2	Benzene	1570	1360	210	86.6	13.4
	2.3	Diethyl Divalproex Sodium					
	1	Methanol	4340	4123	217	95.0	5.0
	2.4	Ferrous Ascorbate					
	1	Isopropyl Alcohol	400	380	20	95.0	5.0
Group 2		Pharmaceutical Intermediates					
	2.1	2,7 Di Chloro-9-H Fluorene					
	1	Methanol	800	750	50	93.8	6.3
	2	Dimethyl Formamide	1000	970	30	97.0	3.0
	2.2	4,7-Dichloroquinoline					
	1	Skellysolve	13208	11895	1313	90.1	9.9
	2.3	N-(2-Phenoxy Phenyl) Methane Sulfonamide					
	1	Dimethyl Aniline	580	570	10	98.3	1.7
	2.4	2- Methyl 5-Nitro imidazole					
	1	Methylene Dichloride	2000	1900	100	95.0	5.0
	2	Ethanol	2500	2400	100	96.0	4.0
	2.5	4,6-Di Chloro 5-Methoxy Pyrimidine					
	1	Methanol	2740	2590	150	94.5	5.5
	2	Toluene	3000	2950	50	98.3	1.7
	2.6	2-Bromo 4-Fluro Acetanilide					
	2	Toluene	1000	960	40	96.0	4.0
	2.7	5,6- Dimethoxy 1-Indanone					
	1	Methylene Dichloride	2470	2358	112	95.5	4.5
	2	Ethylene Dichloride	3950	3790	160	95.9	4.1
	3	Toluene	1742	1672	70	96.0	4.0
	4	Iso Propyl Alcohol	1800	1728	72	96.0	4.0
	2.8	4-Methoxy 2-Nitro Phenyl Amine					
	1	Ethyl Acetate	5625	5512	113	98.0	2.0
	2	Methanol	2250	2200	50	97.8	2.2

	2.9	3-Chloro Propiophenone					
	1	Methanol	5900	5500	400	93.2	6.8

G-2 Brief Note on LDAR proposed:

- Written LDAR program or SOPs for effective implementation and provision of leak detection & repair program.
- Training will be provided to the persons involved in LDAR program.
- The detected leaks will be repaired within time bound. Frequency for monitoring leaks will be quarterly or monthly basis.
- To repair leaking component unit will schedule the first attempt of leak program.
- Record of calibration as well as maintenance activity will be maintained.
- Using Gas Detector by PID Sensor technology
- Using Portable VOC analyzers
- Minimum use of Connectors & Joins
- Provide double condenser system
- Proper Handling of Drum
- Proper Maintenance of valves, flanges, pumps

Product No.	Sr. No.	Raw Materials	Total Input Quantity (Kg)	Qty of Solvent Recovered (Kg)	Qty of Solvent Losses (Kg)	% Recovery	% Loss	
Group 1		Synthetic Drugs						
	1.1	Hydroxy Chloroquine						
	1	Methanol	3088	3042	46	98.5	1.5	
		Methylene Dichloride	6147	6058	89	98.6	1.4	
	1.2	Hydroxy Chloroquine Sulphate						
	1	Methanol	1700	1680	20	98.8	1.2	
	2	Methylene Dichloride	2430	2393	37	98.5	1.5	
	3	Ethyl Acetate	1880	1853	27	98.6	1.4	
	1.3	Hydroxy Chloroquine Phosphate						
	1	Methanol	1700	1680	20	98.8	1.2	
	2	Ethyl Acetate	1126	1109	17	98.5	1.5	
	3	Methylene Dichloride	2497	2471	26	99.0	1.0	
	1.4	Hydroxy Novaldiamine						
	1	Toluene	2000	1970	30	98.5	1.5	
	2	Methylene Dichloride	3000	2960	40	98.7	1.3	
	3	Methanol	2100	2068	32	98.5	1.5	
	1.5	Azithromycin						

	1	Acetone	5000	4930	70	98.6	1.4
	1.6	Lumefentrine					
	1	Methanol	21410	21205	205	99.0	1.0
	2	Di Methyl Formamide	2200	2170	30	98.6	1.4
	2	Ethyl Acetate	745	734	11	98.5	1.5
	3	N-Butanol	1630	1600	30	98.2	1.8
		Methylene Dichloride	5213	5150	63	98.8	1.2
	1.7	Fenofibrate					
	1	Acetone	3000	2955	45	98.5	1.5
	2	Isopropyl Alcohol	1500	1477	23	98.5	1.5
	1.8	Chlorhexidine Base					
	1	Butanol	11640	11525	115	99.0	1.0
	2	Methanol	4790	4720	70	98.5	1.5
	1.9	Nimesulide					
	1	Methanol	2000	1970	30	98.5	1.5
	2	Toluene	3500	3460	40	98.9	1.1
	2.0	Diclofenac Sodium					
	1	Toluene	3030	3000	30	99.0	1.0
	2.1	Tinidazole					
	1	Benzene	1130	1115	15	98.7	1.3
	2	Methanol	850	837	13	98.5	1.5
	2.2	Mebendazole					
	1	Methanol	3060	3023	37	98.8	1.2
	2	Benzene	1570	1547	23	98.5	1.5
	2.3	Diethyl Divalproex Sodium					
	1	Methanol	4340	4297	43	99.0	1.0
	2.4	Ferrous Ascorbate					
	1	Isopropyl Alcohol	400	394	6	98.5	1.5
Group 2		Pharmaceutical Intermediates					70.0
	2.1	2,7 Di Chloro-9-H Fluorene					
	1	Methanol	800	788	12	98.5	1.5
		Dimethyl Formamide	1000	985	15	98.5	1.5
	2.2	4,7-Dichloroquinoline					
	1	Skellysolve	13208	13080	128	99.0	1.0
	2.3	N-(2-Phenoxy Phenyl) Methane Sulfonamide					
	1	Dimethyl Aniline	580	572	8	98.6	1.4
	2.4	2- Methyl 5-Nitro imidazole					
	1	Methylene Dichloride	2000	1980	20	99.0	1.0

	2	Ethanol	2500	2465	35	98.6	1.4
	2.5	4,6-Di Chloro 5-Methoxy Pyrimidine					
	1	Methanol	2740	2712	28	99.0	1.0
	2	Toluene	3000	2955	45	98.5	1.5
	2.6	2-Bromo 4-Fluro Acetanilide					
	2	Toluene	1000	985	15	98.5	1.5
	2.7	5,6- Dimethoxy 1-Indanone					
	1	Methylene Dichloride	2470	2432	38	98.5	1.5
	2	Ethylene Dichloride	3950	3900	50	98.7	1.3
	3	Toluene	1742	1725	17	99.0	1.0
	4	Iso Propyl Alcohol	1800	1773	27	98.5	1.5
	2.8	4-Methoxy 2-Nitro Phenyl Amine					
	1	Ethyl Acetate	5625	5570	55	99.0	1.0
	2	Methanol	2250	2217	33	98.5	1.5
	2.9	3-Chloro Propiophenone					
	1	Methanol	5900	5840	60	99.0	1.0

**G-3 VOC emission sources and its mitigation measures**

- We will be using various kinds of VOC during the proposed products manufacturing. But, we have adopted following mitigation measures to ensure that safe working conditions are provided to our employees and there is no adverse effect due to handling of VOC.
1. **RISK ASSESSMENT:-** We will be conducting detail risk assessment of our proposed products to identify risks involved, process hazards, and health hazards and suggest corrective measure to each and every identified risk. All the corrective measures suggested in the risk assessment will be implemented before starting of production activities.
  2. **CLOSE SYSTEM HANDLING:-** The entire plant will be designed on the concept of close system handling of chemicals. Whether it is dispensing, charging, filtering, packing or any other activity we will provide the latest technology in material handling to ensure that there is no exposure to VOC.
  3. **CONDENSER:-** We will provide minimum 2 condensers to all the process reactors with 2 different utilities to ensure that there is no uncondensed vapour escaping in the working area or atmosphere.
  4. **SCRUBBING:-** All the process vents, receiver vents, tanks vents wherein toxic and hazardous chemicals are stored will be connected to scrubber appropriately to ensure that no obnoxious vapours are released in to the atmosphere causing any health risk. Appropriate Carbon bed is provided in the vent of scrubber to ensure that any escaping VOC is absorbed.
  5. **LOCAL EXHAUST VENTILATION:-** We will also provide local exhaust ventilation within the working are appropriately. Whenever any open handling is involved it will be done only under local exhaust ventilation connected to scrubber.
  6. **TRAINING:-** All the concerned employees will be adequately trained in the health hazards of the chemicals being used, safety precautions to be taken while chemical handling
  7. **PPE:-** We will provide the best quality and all the required personal Protective Equipment to all our employees. They will be trained in effective use of PPE.
- Atmospheric Distillation of Solvents:
- Primary Condenser HE-01: Cooling Tower water or Chilled water (at 05 °C) will be used to condense the



solvents depend on the vapour pressure at its operating conditions and the non-condensed vapour will be condensed in a Secondary Condenser Secondary Condenser HE-02: Chilled Brine at -15 °C will be used to trap any traces of Solvent which is slipped from Secondary condense.

H	SAFETY details
H-1	Details regarding storage of Hazardous chemicals (For tank storages only including spent acid and spent solvent tanks)

Sr. No.	Name of Hazardous substance mention concentration (if any)	Quantity		Characteristics of Hazards Chemicals
		Maximum Storage	Actually Storage	
1	Sulphuric Acid	10 MT	8.0 MT x 1	Corrosive
2	Caustic Soda Lye 48 %	10 MT	8.0 MT x 1	Corrosive
3	Hydrochloric Acid	10 MT	8.0 MT x 1	Corrosive
4	MDC	10 MT	8.0 MT x 1	Corrosive
5	Liquid Bromine	10 MT	8.0 MT x 1	Toxic, Corrosive
6	Thionyl Chloride	10 MT	8.0 MT x 1	Toxic, Corrosive

#### Brief note on storage of Hazardous chemicals in Tanks

- Tanker unloading Procedure is prepared and implemented.
- Caution note and emergency handling procedure is displayed at unloading area and trained all operators.
- Storage tank is stored away from the process plant.
- Dyke wall is provided to all storage tanks, collection pit with valve provision.
- Double drain valve will be provided.
- Level gauge is provided on all storage tanks.
- Fire hydrant system with jockey pump will be installed.

#### Brief note on storage of Hazardous chemicals other than Tanks i.e. Drum, Barrels, Carboys, Bags etc.

- Proper ventilation will be provided in storage area.
- Proper label and identification board / stickers will be provided in the storage area.
- Drum handling trolley / stackers/ fork lift will be used for drum handling.
- Materials will be stored as per its compatibility study and separate area will be made for flammable, corrosive and toxic chemical drums storage.
- Smoking and other spark, flame generating item will be banned from the gate.
- Static earthing will be provided.
- SS flexible hose / conductive hose will be used.

#### Safety details of Hazardous Chemicals:

Name of Hazardous substance	Safety Control Measures Provided
Methanol	<ul style="list-style-type: none"> <li>➤ Store house is well ventilated and at ambient condition.</li> <li>➤ SOP for storage &amp; handling of the product.</li> <li>➤ Availability of suitable fire extinguishers</li> <li>➤ Sprinkler system shall be provided</li> <li>➤ Entry of Authorized personnel only</li> <li>➤ Containers are kept tightly closed</li> </ul>
Hexane	
Butanol	
Acetone	
Ethyl Acetate	

Chlorine Gas	<ul style="list-style-type: none"> <li>➤ Stored in MS Cylinder</li> <li>➤ Provision of ERU (Earth Relay Unit), flameproof electrical, lighting arrestor, etc</li> <li>➤ Gas detection system.</li> <li>➤ All flange joints on the lines are provided with jumpers.</li> <li>➤ Safety Water Pit</li> <li>➤ Shell load system</li> <li>➤ Provision for SOP for storage &amp; handling of the material</li> </ul>
Hydrochloric Acid	<ul style="list-style-type: none"> <li>➤ Dyke wall will be provided.</li> <li>➤ Dyke wall of sufficient size will be</li> <li>➤ Provided in DD1 TFA.</li> <li>➤ Tank, valve, pipeline will be checked</li> <li>➤ And maintain, in good condition.</li> </ul>
Sulphuric Acid	<ul style="list-style-type: none"> <li>➤ Apron, Hand gloves, gumboot, goggles and helmet provided.</li> <li>➤ Neutralizing agent shall be provided</li> <li>➤ ISI Portable fire extinguisher will be provided.</li> <li>➤ Scrubber system will be provided</li> </ul>
Hydrogen	<ul style="list-style-type: none"> <li>➤ Apron, Hand gloves, gumboot, goggles &amp; helmet will be provided</li> <li>➤ ISI Portable fire extinguisher &amp;</li> <li>➤ Hydrant line will be provided.</li> <li>➤ Flame proof fitting provided.</li> <li>➤ Sufficient Nos. of SCBA sets.</li> <li>➤ Preventive maintenance on regular basis.</li> <li>➤ Cylinder will be stored and used under Shed to protect from direct sun light.</li> </ul>

➤ Applicability of PESO : Company will apply for PESO after getting EC & CTE.

H-2 Types of hazardous Processes involved and its safety measures:  
(Hydrogenation process, Nitration process, Chlorination process, Exothermic Reaction etc.)

Type of Process	Safety measures including Automation
Hydrogenation process :-	<p>Hydrogen Process Safety:</p> <ol style="list-style-type: none"> <li>1. 3 time Nitrogen purge into reactor to clean the reactor. Then charge material and hydrogen in reactor.</li> <li>2. Pressure of Hydrogen – 2 kg/cm<sup>2</sup>.</li> <li>3. Auto damping system will be installed, in case power failure.</li> <li>4. Oxygen Detector will be installed.</li> </ol> <p><b>SPECIAL PRECAUTIONS FOR HANDLING HYDROGEN:</b></p> <ol style="list-style-type: none"> <li>5. CCE approved premises with door having locking arrangement provided.</li> <li>6. Protect cylinders against physical damage.</li> <li>7. Store in cool, dry, well-ventilated area, away from sources of heat, ignition and direct sunlight.</li> <li>8. Do not allow area where cylinders are stored to exceed 52°C (125°F).</li> <li>9. Isolate from oxidizers such as oxygen, chlorine, or fluorine.</li> <li>10. Use a check valve or trap in the discharge line to prevent hazardous backflow.</li> <li>11. Post “No Smoking or Open Flame” signs in storage and use areas.</li> <li>12. Cylinders should be stored upright and be firmly secured to prevent falling or being knocked over.</li> <li>13. Cylinders can be stored in the open, but in such cases, should be protected against extremes of weather and from the dampness of the ground to prevent rusting.</li> <li>14. Never tamper with pressure relief devices in valves and cylinders. Electrical equipment should be non-sparking or explosion proof.</li> <li>15. Flammable high-pressure gas.</li> </ol>

	<p>16. Use only in a closed system.</p> <p>17. Use piping and equipment adequately designed to withstand pressures and temperatures to be encountered.</p> <p>18. Gas can cause rapid suffocation due to oxygen deficiency.</p> <p>19. Never work on a pressurized system.</p> <p>20. If there is a leak, close the cylinder valve. Blow the system down in a safe and environmentally sound manner in compliance with all federal, state, and local laws; then repair the leak.</p> <p>21. Never place a compressed gas cylinder where it may become part of an electrical circuit.</p> <p>22. Apron, Hand gloves, gumboot, goggles &amp; helmet provided.</p> <p>23. ISI Portable fire extinguisher &amp; Hydrant line is provided as per TAC norms.</p> <p>24. Flame proof fitting provided &amp; Sufficient Nos. of SBA sets &amp; 2 No. of Air line mask.</p> <p>Following safety Measures will be taken while storage &amp; handling of Hydrogen gas:</p> <p>25. Measures to be taken to prevent such accident: for H2 Rack Handling</p> <p>26. Hydrogen Cylinder rack will be parked in barricaded Separate area</p> <p>27. FLP Electrical Installation provide near storage area</p> <p>28. Vehicle allowed with Spark Arrestor</p> <p>29. No Smoking / Hot work allowed</p> <p>30. Trained staff</p> <p>31. Special Vehicle with Trained Operating staff for H2 Rack</p> <p>32. PPE Worn</p> <p>33. Spark proof tools used</p> <p>34. Safety shower, eye wash with quenching unit will be provided in handling / storage area.</p> <p>For H<sub>2</sub> Cylinders</p> <p>35. Cylinder</p> <p>36. Separate Isolated Cylinder manifold</p> <p>37. H2 cylinder stand with Chain link supporting</p> <p>38. Trained Operator</p> <p>39. Flameproof Electrical Installation</p> <p>40. Spark proof Spanner set Earthing, Grounding and Bonding on the Pipeline</p>
Nitrating process	<p>1. The Reactor will have Temperature control system cascaded with cooling water system consisting of Cooling tower, pumps and circulating system. In case of high temperature the steam will get cut off and cooling water will start circulating through the reactor coils. Alternately Chilled water system is also provided for extreme emergencies.</p> <p>2. The Reactor will have rupture disc and safety valves which will take care of excess pressure and the outlet of which is connected to the scrubbers.</p> <p>3. The Reactor will also have a separate high local vent with pressure relief valve which is connected to a catch pot with water. The catch pot contents will be separated for recycle purpose. This will be additional safety, if 1 &amp; 2 fail at the same time, which is unlikely.</p>
Chlorination process	<ul style="list-style-type: none"> <li>• FLP type area will be provided.</li> <li>• Total enclosed process system.</li> <li>• Instrument &amp; Plant Air System.</li> <li>• Safety valve and Rupture disc provided on reactor.</li> <li>• Cooling Chilling and power alternative arrangement have been made on Reactor.</li> <li>• PRV station with shut off valve, safety valve provision will be made for Chlorination reaction safety.</li> <li>• Flame arrestor will be provided on vent line of reactor and it will be extended up to roof level.</li> <li>• Open well ventilated and fragile roofs will be provided to on reactor.</li> </ul>

- Safe Catalyst charging method will be adopted.
- SOP will be prepared and operators will be trained for the same.
- Hood scrubber with blower, if any leakage
- Chlorine Kit Keep caustic solution

H-3 Details of Fire Load Calculation

Total Plot Area:	1864 Sq. m.
Area Utilized for plant activity:	729 m <sup>2</sup>
Area Utilized for Hazardous Chemicals Storage:	525 m <sup>2</sup>
Number of Floors:	G + 2
Water requirement for firefighting in KLD :	3.8 KL
Water storage tank provided for Fire-fighting in KLD:	200 KL
Details of Hydrant Pumps:	Yes
Nearest Fire Station :	Sarigam
Applicability of Off Site Emergency Plan:	Yes, Off Site Emergency Plan is prepared.

H-4 Details of Fire NOC/Certificate:

H-5 Details of Occupational Health Centre (OHC):

Number of permanent Employee :	30
Number of Contractual Person / Labour :	10
Area provided for OHC:	54
Number of First Aid Boxes :	5
Nearest General Hospital :	Sarigam Rotary Hospital
Name of Antidotes to be store in plant :	Milk of Magnesia, epicake syrup, Novasine Eye Drops

- During meeting, Committee noted that PP presented SOP for handling of huge quantity of bromine and its storage in storage tank and membership of TSDF and CHWIF site.
- Committee found reply submitted by PP was satisfactory.

- **After detailed discussion, Committee unanimously decided to recommend the project to SEIAA, Gujarat for grant of Environment Clearance with the following specific condition:**

**SPECIFIC CONDITIONS:**

1. PP shall comply conditions of any subsequent amendment or expansion or change in product mix, after the 30th September 2020, considered as per the provisions in force at that time as mentioned in the Notification vide S.O. 1223 (E) dated 27/03/2020.
2. PP shall carry out proposed project/activities in respect of Active Pharmaceutical Ingredients (API) as per the amended EIA Notification vide S.O. 1223 (E) dated 27/03/2020 and any subsequent amendments.
3. PP shall submit six monthly compliance report of Environmental Clearance without fail and the same shall be critically assessed by the regulatory authority.
4. PP shall strictly following standard operating procedure(SOP) for storage and handling of huge quantity of bromine in bromine storage tank as per SOP for bromine submitted by PP.
5. Unit shall install CEMS [**Continuous Emission Monitoring System**] in line to CPCB directions to all SPCB vide letter no. B-29016/04/06PCI-1/5401 dated 05/02/2014 for effluent discharge and air emission as per pollutants discharge/emission from respective project and an arrangement shall also be done for reflecting the online monitoring results on the company's server, which can be assessable by the GPCB/CPCB on real time basis. [**For Small/Large/Medium (Red Category) & Whichever (Air emission & Effluent discharge) is applicable**].
6. Close loop solvent recovery system with adequate condenser system shall be provided to recover solvent vapours in such a manner that recovery shall be maximum and recovered solvent shall be reused in the process within premises.
7. Leak Detection and Repair (LDAR) program shall be prepared and implemented as per the CPCB guidelines. LDAR Logbooks shall be maintained.
8. All measure shall be taken to avoid soil and ground water contamination within premises.
9. PP shall not commission production plant till common spray dryer facility of M/s. Umiya Enviro project LLP shall be obtained CCA of the Board for acceptance of effluent for evaporation.

**WATER**

10. Total water requirement for the project shall not exceed 50 KLD. Unit shall reuse 2 KLD of treated industrial effluent within premises. Hence, fresh water requirement shall not exceed 48 KLD and it shall be met through GIDC supply only. Prior permission from concerned authority shall be obtained for withdrawal of water.
11. The industrial effluent generation from the project shall not exceed 31.50 KLD.
12. Industrial effluent shall be segregated into two streams (1) High COD and TDS effluent (2) Low COD and TDS effluent and it shall be managed as below.

- **High COD and TDS effluent (24 KLD)**

- 24 KLD, High COD and TDS effluent from process shall be treated in ETP-1 consists of Primary treatment units. Then treated effluent shall be evaporated in in-house MEE and 22 KLD, MEE condensate shall be further treated in low COD stream ETP.

- **Low COD and TDS effluent (5 + 2.5 KLD):**

- 5 KLD, Low COD effluent from utility and washing along with 22 KLD, MEE condensate shall be treated in ETP-2 and treated effluent shall be sent to CETP of GIDC Sarigam for further treatment and disposal.
- 2.50 KLD, exhausted scrubbing media shall be sold to end users having Rule-9 permission as per Hazardous Waste Rules'2016.

13. Unit shall feed wastewater to in-house MEE only after ensuring content of effluent for COD/VOC so as not to get air borne during evaporation in order to achieve no adverse impacts on Environment and Human Health.
14. Treated waste water shall be sent to common facilities (CETP) only after complying with the inlet norms of common facilities prescribed by GPCB to ensure no adverse impact on Human Health and Environment
15. Domestic wastewater generation shall not exceed 2 KL/day for proposed project and it shall be treated in STP. It shall not be disposed off through soak pit/ septic tank. Treated sewage shall be utilized for gardening and plantation purpose within premises after achieving on-land discharge norms prescribed by the GPCB.
16. During monsoon season when treated sewage may not be required for the plantation / Gardening / Green belt purpose, it shall be disposed in GIDC drainage.
17. Unit shall provide buffer water storage tank of adequate capacity for storage of treated effluent during any emergency or shutdown of in-house MEE.

### **AIR**

18. Unit shall not exceed fuel consumption and provide APCM and Stack height as mentioned in flue gas matrix.
19. Unit shall provide APCM and stack height as mentioned in process gas matrix.

### **HAZARDOUS & SOLID WASTE**

20. All hazardous solid waste shall be managed as mentioned in hazardous waste matrix.
21. The unit shall submit the list of authorized end users of hazardous wastes along with MoU signed with them at least two months in advance prior to the commencement of production. In the absence of potential buyers of these items, the unit shall restrict the production of the respective items.

### **GREENBELT AREA**

22. The PP shall develop green belt within premises (615 Sq. m i.e. 33 % of the total plot area) as per the undertaking submitted before SEAC. Green belt shall be developed with native plant species that are significant and used for the pollution abatement as per the CPCB guidelines. It shall be implemented within 3 years of operation phase in consultation with GPCB.

**23. Safety & Health:**

- a) PP shall obtain PESO permission for the storage and handling of hazardous chemicals.
- b) PP shall provide Occupational Health Centre (OHC) as per the provisions under the Gujarat Factories Rule 68-U.
- c) PP shall obtain fire safety certificate / Fire No-Objection certificate (NOC) from the concern authority as per the prevailing Rules / Gujarat Fire Prevention and Life Safety Measures Act, 2016.
- d) Unit shall adopt functional operations/process automation system including emergency response to eliminate risk associated with the hazardous processes.
- e) PP shall carry out mock drill within the premises as per the prevailing guidelines of safety and display proper evacuation plan in the manufacturing area in case of any emergency or accident.
- f) PP shall install adequate fire hydrant system with foam trolley attachment within premises and separate storage of water for the same shall be ensured by PP.
- g) PP shall take all the necessary steps for control of storage hazards within premises ensuring incompatibility of storage raw material and ensure the storage keeping safe distance as per the prevailing guidelines of the concerned authority.
- h) PP shall take all the necessary steps for human safety within premises to ensure that no any harm is caused to any worker/employee or labour within premises.
- i) Flame proof electrical fittings shall be provided in the plant premises, wherever applicable.
- j) Unit shall never store drum/barrels/carboys of incompatible material/chemical together.
- k) Unit shall provide effective Isolation for Process area and storage of hazardous chemicals.
- l) Unit shall provide water sprinkler to the ammonia storage cylinder.
- m) Unit shall provide effective fire hydrants, water monitors & foam application system at solvent storage tank farm area. Unit shall provide adequate safety system such as water sprinklers, water curtains, foam pouring system etc. to restrict cascade fire emergency in solvent tank farm.
- n) Unit shall provide a spare tank with emergency transfer system and bund/ dyke wall to Br2 storage tank.
- o) Unit shall provide safety valve and rupture disc, as well as auto dump or auto quench/, suppress system for nitration vessel safety.
- p) Unit shall provide chlorine leakage control emergency kit and FRP hood with scrubber system for chlorine safety.
- q) Unit shall provide safety valve & rupture disc to the Hydrogenation vessel.

8.	SIA/GJ/IND2/60892/2019	<b>M/s. Shreeji Pigment</b> Plot No. 5906/3A, GIDC, Ankleshwar, Ta- Ankleshwar, Dist: Bharuch	EC-Reconsideration
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Category of the unit: **5(f)**

Project status: **Expansion**

- Project proponent (PP) has submitted online application vide no. SIA/GJ/IND2/60892/2019 on dated 02/03/2021 for obtaining Environmental Clearance.
- SEIAA issued TOR to PP vide letter dated 13/05/2019.
- Project proponent has submitted EIA Report prepared by M/s. Aqua Air Environmental Engineers Pvt. Ltd based on the TOR issued by SEIAA.
- This is an existing unit and now proposed for expansion in manufacturing of synthetic organic chemicals as mentioned below:

Sr. no.	Name of the Products	CAS no. / CI no.	Quantity MT/Month			End-use of the products
			Existing	Proposed	Total	
1	Beta Blue	147-14-8	5.0	55.0	60.0	In Paint & Plastic Mfg. Industries.
2	Beta Blue (only through Ball Milling of CPC)	147-14-8	100	--	100.0	In Paint & Plastic Mfg. Industries.
3	Standardization of Pigments	147-14-8	50	--	50.0	In Paint & Plastic Mfg. Industries.
	Total		155.0	55.0	210.0	

- The project falls under B1 category of project activity 5(f) as per the schedule of EIA Notification 2006.
- PP was called for Video conference meeting for presentation on dated 01.06.2021.
- During the SEAC Video conference meeting dated 01.06.2021, Project Proponent (PP) and their technical expert and EIA consultant from M/s. Aqua Air Environmental Engineers Pvt. Ltd remain present and made technical presentation before the Committee.
- During the meeting, the project was appraised based on the information furnished in the EIA Report and details presented during the meeting.
- The baseline environmental quality has been assessed for various components of the environment viz. air, noise, water, biological and socioeconomic aspect. The baseline environmental study has been conducted for the study area of 10 km radial distance from project site for the period March 2019 to May 2019. Ambient Air Quality monitoring was carried out for PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, NO<sub>x</sub>, CO, HC and VOCs at Eight locations, including the project site. Values conform to the prescribed standards for Ambient Air Quality. The incremental Ground Level Concentration (GLC) has been computed using "AERMOD". The resultant



concentrations are within the NAAQS. The modeling study proved that the air emissions from the proposed plant would not affect the ambient air quality of the region in any significant manner. The ambient air quality around the proposed project site will remain within the National Ambient Air Quality Standards (NAAQS).

- Risk assessment including prediction of the worst-case scenario and maximum credible accident scenarios has been carried out. The detail proposed safeguard measures including On-Site / Off-Site Emergency Plan has been covered in the RA report.
- Upon asking regarding QCI/NABET accreditation for preparation of EIA preparation for proposed project, technical expert of PP informed that they have obtained QCI/NABET accreditation for preparation of EIA/EMP report as per the amended EIA Notification vide S.O. 648 (E) Dated 03.03.2016.
- This is an expansion project proposed for manufacturing of synthetic organic chemicals at GIDC Ankleshwar. Unit is having Valid CCA of the Board for existing plant. PP submitted CC&A compliance report for existing plant. Product profile with its end-use is discussed in depth. Source of water supply is GIDC. Committee noted that PP has addressed there is no legal court case, public complaint against unit. PP presented one closure order and one Show Cause Notice (SCN) issued by the Board and also unit obtained revocation of closure order from GPCB in year of 2016. Committee noted that PP has addressed area adequacy with layout plan for proposed project site. Upon asking regarding at a time how many products will be manufactured, PP informed that they will manufacture one products at a time in Production plant.
- Committee deliberated on Process safety, area adequacy and layout plan, Fire safety, water balance & waste water management, Flue gas and process gas emission & Air Pollution Control System, Hazardous waste matrix, EMP, CER, LDAR and solvent recovery, Green belt, Risk assessment, baseline data etc.
- Committee noted the following:
  - ✓ PP has proposed total industrial effluent will be treated in ETP and then treated effluent will be discharged into GIDC drainage leading to FETP of M/s NCT for further treatment and disposal..
  - ✓ Domestic effluent will be treated in STP and treated sewage will be used for gardening purpose within premises.
  - ✓ Natural gas as fuel for Boiler and hot air generator.
  - ✓ There is no process gas emission.
  - ✓ Exhausted scrubbing media will be selling out as per the HW Rules.
  - ✓ PP submitted hazardous waste matrix mentioning source of generation, quantity and Mode of disposal and committed to comply the Hazardous and Other Wastes (Management and Trans boundary Movement) Rules 2016.
- Committee asked for submission of following documents and information,
  1. Submission of each and every specific ToR compliance report precisely with technical details of ToR accorded by SEIAA vide ToR letter dated 03/05/2019.
  2. Revised flue gas emission matrix with mentioning adequate stack height.
- **After detailed discussion, Committee unanimously decided to consider the project in one of upcoming meeting after submission of following documents:**

A. Submission of each and every specific ToR compliance report precisely with technical details of ToR accorded by SEIAA vide ToR letter dated 03/05/2019.

B. Revised flue gas emission matrix with mentioning adequate stack height.

- PP submitted the reply of the said points of meeting dated 01.06.2021 along with other supporting documents.
- This proposal is reconsidered in SEAC meeting dated **05.08.2021**. PP along with their technical expert/consultant from M/s Aqua Air Environmental Engineers Pvt. Ltd remains present in the meeting and made presentation before committee.
- PP submitted revised salient features of water, air and Hazardous waste management are as under,

Sr. no.	Particulars	Details																
A	PROJECT COST, EMP, CER																	
A-1	Total cost of Proposed Project (Rs. in Crores):																	
	<table border="1"> <thead> <tr> <th>Existing</th> <th>Proposed</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>1.0 Crores</td> <td>0.5 Crores</td> <td>1.5 Crores</td> </tr> </tbody> </table>		Existing	Proposed	Total	1.0 Crores	0.5 Crores	1.5 Crores										
Existing	Proposed	Total																
1.0 Crores	0.5 Crores	1.5 Crores																
	Break-up of proposed project Cost:																	
	<table border="1"> <thead> <tr> <th>Details</th> <th>Existing (Rs. In Crores)</th> <th>Proposed (Rs. In Crores)</th> <th>Total (Rs. In Crores)</th> </tr> </thead> <tbody> <tr> <td>Land</td> <td>0.5</td> <td>0</td> <td>0.5</td> </tr> <tr> <td>Building</td> <td>0.4</td> <td>0</td> <td>0.4</td> </tr> <tr> <td>Machinery</td> <td>0.6</td> <td>0</td> <td>0.6</td> </tr> </tbody> </table>		Details	Existing (Rs. In Crores)	Proposed (Rs. In Crores)	Total (Rs. In Crores)	Land	0.5	0	0.5	Building	0.4	0	0.4	Machinery	0.6	0	0.6
Details	Existing (Rs. In Crores)	Proposed (Rs. In Crores)	Total (Rs. In Crores)															
Land	0.5	0	0.5															
Building	0.4	0	0.4															
Machinery	0.6	0	0.6															
A-2	Details of Environmental Management Plan (EMP)	As below:																

Sr. No	Unit	Detail	Capital Cost (Rs. In Crores)	Operating Cost (Rs. In Crores)	Maintenance Cost (Rs. In Crores)	Total Recurring Cost (Rs. In Crores)
1	Waste Water	Primary treatment units and treated waste water will be sent to Treated effluent will be sent to	0.36	0	0	1.10

		FETP of M/s. NCT, Ankleshwar.				
2	Air	Cost of Dust Collector, stack installation, Spin Flash Dryer, & Cost of maintenance of APCM System	0.05	0	0	0.059
3	Hazardous Management	Construction of Hazardous waste storage yard	0.05	0	0	--
4	Fire & Safety	Cost of Fire Hydrant System, fire extinguisher, fire proximity suites	0.38	0	0	0.02
5	AWH Monitoring	pH, COD apparatus, BOD Incubator, RDS, TDS meter, Flow Meter	0.10	0	0	0.02
6.	Green Belt Development	33 % of the plant area will be developed as greenbelt.	0.054	0	0	0.025



	<p style="text-align: center;">= 24 * 3 (HW) + 187.4 *3 (Raw material + Product + Other)  = 72 (HW) + 562.2 (Raw material + Product + Other)  = 634.2 MT</p> <p>Company has storage capacity 634.2 MT/four days but company will require 131 MT  So, Adequate Area will be provided for Storage</p>																														
B-4	<p>Green belt area</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th></th> <th>Existing</th> <th>Proposed (Sq. meter)</th> <th>Total (Sq. meter)</th> </tr> </thead> <tbody> <tr> <td>Area in Sq. meter</td> <td style="text-align: center;">858</td> <td style="text-align: center;">0</td> <td style="text-align: center;">858</td> </tr> <tr> <td>% of total area</td> <td style="text-align: center;">33 %</td> <td style="text-align: center;">0</td> <td style="text-align: center;">33%</td> </tr> </tbody> </table> <p>In case of GREEN-BELT partly outside premises, give complete details like exact location (Lat-Long), Agreement/MoU with specific area etc.</p>		Existing	Proposed (Sq. meter)	Total (Sq. meter)	Area in Sq. meter	858	0	858	% of total area	33 %	0	33%																		
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	<p>Employment generation details</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Existing</th> <th>Proposed</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">12</td> <td style="text-align: center;">8</td> <td style="text-align: center;">20</td> </tr> </tbody> </table> <p>In case of Indirect employment, Give details.</p>	Existing	Proposed	Total	12	8	20																								
Existing	Proposed	Total																													
12	8	20																													
D	WATER																														
D-1	<p>Source of Water Supply  (GIDC, Bore well, Surface water, Tanker supply etc...)  GIDC Water supply</p> <p>Status of permission from the concern authority.  ➤ GIDC/RM/ANK/ALT/8239 dated:19/11/2009</p>																														
D-2	Water consumption (KLD)																														
	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Category</th> <th>Existing KLD</th> <th>Proposed (Additional) KLD</th> <th>Total after Expansion KLD</th> <th>Remarks</th> </tr> </thead> <tbody> <tr> <td>(J) Domestic</td> <td style="text-align: center;">2.5</td> <td style="text-align: center;">0.0</td> <td style="text-align: center;">2.5</td> <td></td> </tr> <tr> <td>(K) Gardening</td> <td style="text-align: center;">1.0</td> <td style="text-align: center;">0.0</td> <td style="text-align: center;">1.0</td> <td></td> </tr> <tr> <td>(L) Industrial</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td style="text-align: center;">Process</td> <td style="text-align: center;">3.5</td> <td style="text-align: center;">1.2</td> <td style="text-align: center;">4.7</td> <td></td> </tr> <tr> <td style="text-align: center;">Washing</td> <td style="text-align: center;">16.5</td> <td style="text-align: center;">0.0</td> <td style="text-align: center;">16.5</td> <td></td> </tr> </tbody> </table>	Category	Existing KLD	Proposed (Additional) KLD	Total after Expansion KLD	Remarks	(J) Domestic	2.5	0.0	2.5		(K) Gardening	1.0	0.0	1.0		(L) Industrial					Process	3.5	1.2	4.7		Washing	16.5	0.0	16.5	
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Boiler	1.0	0.0	1.0	
Cooling	1.0	0.0	1.0	
Others	0.0	0.0	0.0	
Industrial Total	22.0	1.2	23.2	
Grand Total (A+B+C)	25.5	1.2	26.7	
Brief Note on worst case scenario for water consumption:				
➤ Worst case scenario for water consumption is based on considering Beta Blue for high consumption of water per day				
-				
Summary of water requirement	Existing KLD	Proposed (Additional) KLD	Total after Expansion KLD	Remarks
Total water requirement for the project (A)	25.5	1.2	26.7	
Quantity to be recycled (B)	0	0	0	
Total fresh water requirement (C)	25.5	1.2	26.7	
Ensure Total water requirement = Fresh water + Recycled water i.e. A = B + C				
Reuse/Recycle details (KLD) with feasibility. [Source of reuse & application area]				
Source of waste water for reuse in KLD (From where it is coming)	Application area with quantity in KLD (Where it is used)	Characteristics of waste water to be reused (COD, BOD, TDS etc.)	Remarks regarding feasibility to reuse	
--	--	--		

	In case of no reuse/recycle of waste water, Give brief note on justification as why no reuse/recycle. <ul style="list-style-type: none"> <li>➤ There will be no reuse as Process effluent and utility waste water will be treated in ETP and disposed to FETP, M/s. NCT</li> </ul>																																																		
D-3	Waste water generation (KLD)																																																		
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Cooling	0.0	0.0	0.0																																																
Others	0.0	0.0	0.0																																																
Total Industrial waste water	20.0	0.0	20.0																																																
Grand Total (A+B+C)	22.0	0.0	22.0																																																
<p>Brief justification in case of no process effluent generation or no industrial effluent generation or no high concentration effluent generation from proposed project (Whichever is applicable).</p> <ul style="list-style-type: none"> <li>➤ Not Applicable</li> </ul>																																																			
D-4	Mode of Disposal & Final meeting point (Existing and Proposed)																																																		
Existing and Proposed																																																			
<table border="1"> <tr> <td>Domestic:</td> <td>Domestic effluent (2 KL/Day) will be treated in STP and sent to FETP of M/s. NCT, for final treatment and final disposal</td> </tr> <tr> <td>Industrial:</td> <td>Process effluent (20 KL/Day) and utility wastewater will be treated in Primary treatment and along with domestic waste water sent to FETP (22 KL/Day) of M/s. NCT, for final treatment and final disposal</td> </tr> </table>		Domestic:	Domestic effluent (2 KL/Day) will be treated in STP and sent to FETP of M/s. NCT, for final treatment and final disposal	Industrial:	Process effluent (20 KL/Day) and utility wastewater will be treated in Primary treatment and along with domestic waste water sent to FETP (22 KL/Day) of M/s. NCT, for final treatment and final disposal																																														
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- Clearly mention about final disposal FETP (22 KL/Day) of M/s. NCT, for final treatment and final disposal																																																			
D-5	Treatment facilities																																																		
For Domestic waste water:																																																			

Capacity of STP: 2 KL/Day

For Industrial waste water: Treatment facility within premises with capacity

[In-house ETP (Primary, Secondary, Tertiary), MEE, Stripper, Spray Dryer, STP etc.

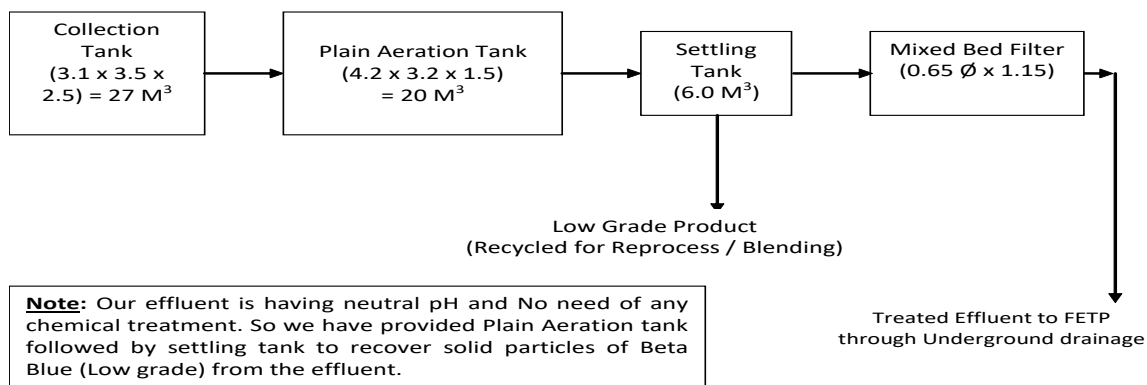
Treatment scheme including segregation at source. (Give Characteristics of each stream i.e. COD, BOD, TDS etc.) In case of stream segregation, Separate ETP (ETP-1, ETP-2....) for each stream shall be proposed.

M/s. Shreeji Pigment shall propose an Effluent treatment plant consisting of primary treatments. The details of ETP are as follows.

The company has provided Effluent Treatment Plant for treatment of industrial wastewater. The entire quantity of wastewater is collected in collection tank having neutral pH. From the collection tank effluent is pumped to the Plain Aeration tank, where air is purging by air compressor. Then effluent is transferring into the settling tank, where solid particles of Beta Blue are settling down and clear effluent from the top is passing through mixed Bed Filter. Solid Particles from the bottom of the Settling Tank is our low Grade product (Beta Blue), which is recycled back in process or blending with Finished Product.

The treated effluent after ensuring its quality finally discharged into deep sea via FETP of NCTL through underground drainage of GIDC, Ankleshwar.

**BLOCK DIAGRAM FOR EFFLUENT TREATMENT PLANT**



**Note: (In case of CETP discharge) :**

Management of waste water keeping in view direction under section 18 (1) (b) of the Water (Prevention and Control of Pollution) act, 1974 issued by CPCB regarding compliance of CETP.

- FETP, M/s. NCTL Membership Certificate

**Brief note on adequacy of ZLD (In case of Zero Liquid Discharge):**

- Not Applicable, Unit will sent effluent to FETP, M/s. NCT.

D-6

In case of Common facility (CF) i.e. CETP, Common Spray dryer, Common MEE, CHWIF etc.

Name of Common facility (CF) (For waste water treatment)

- FETP, M/s. NCTL Membership Certificate

Membership of Common facility (CF) mentioning total capacity, consented quantity, occupied capacity and spare capacity and norms of acceptance of effluent from member units in-line with the direction given by GPCB vide Letter No. GPCB/P-1/8-G



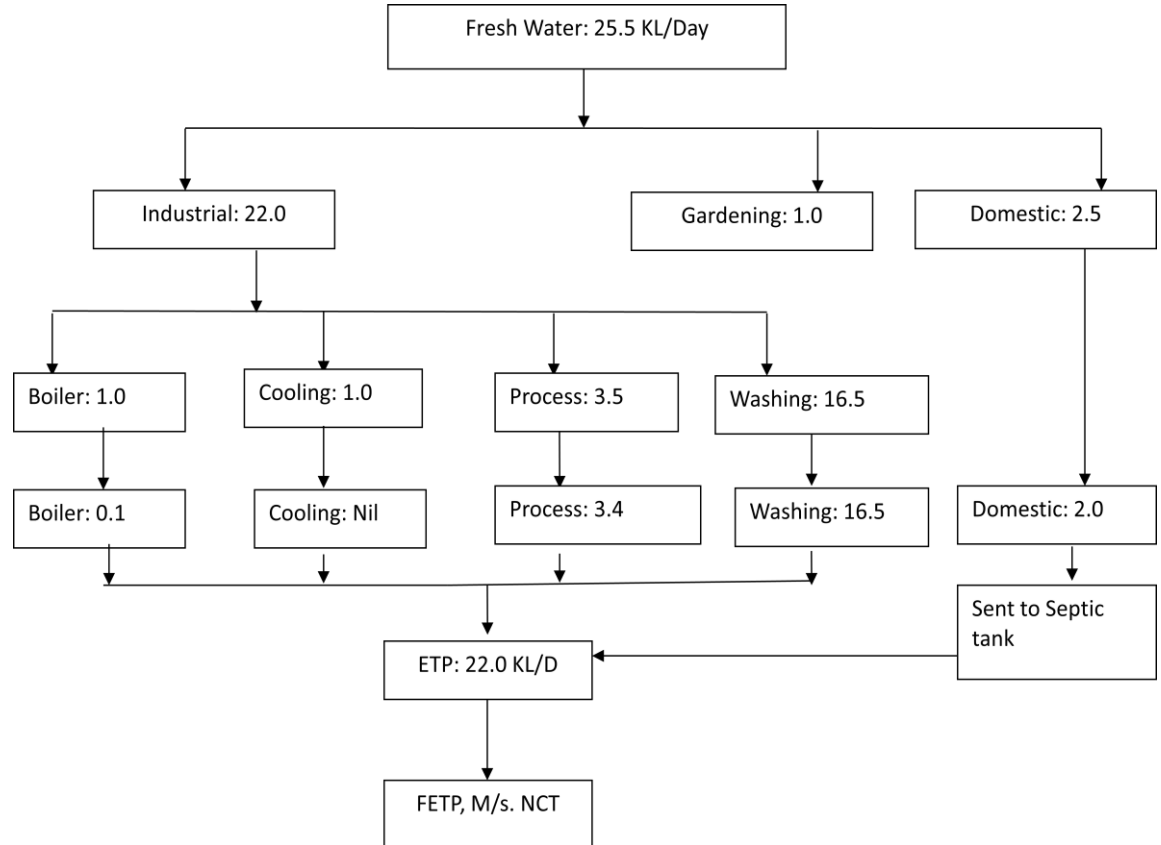
(5)/550706 dated 08/01/2020.

➤ NCT/MI/April-33 dated:06/04/2018

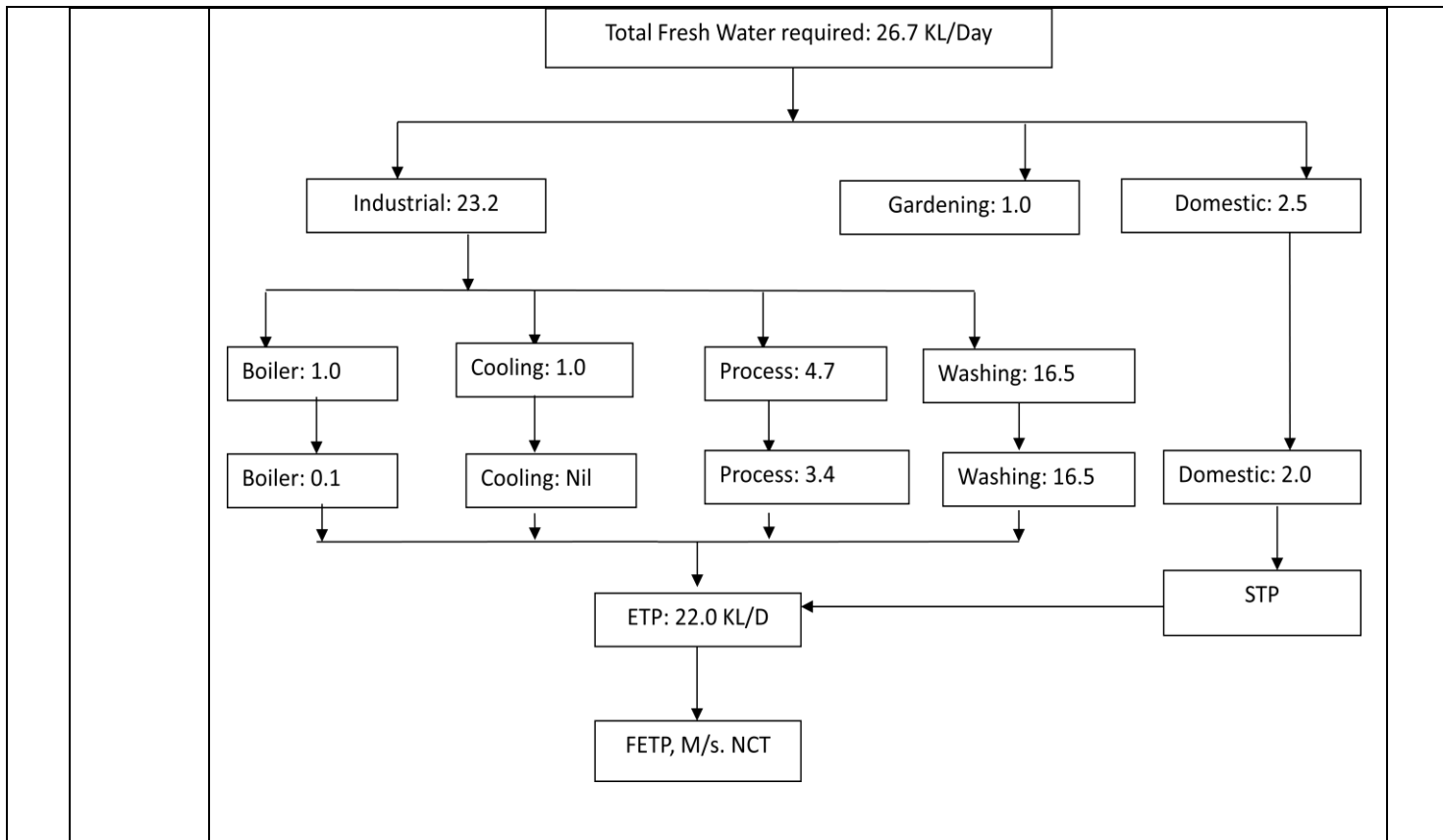
D-7

Simplified water balance diagram with reuse / recycle of waste water (Existing and Proposed)

Water Balance Diagram (Existing)



Water Balance Diagram (Total Proposed)



E AIR

E-1 Brief Note on fuel based Heat energy requirement and worst case scenario thereof:

E-2 Flue gas emission details  
 No. of Boilers/TFH/Furnaces/DG sets etc. with capacities viz. TPH, Kcal/hr, MT/hr, KVA etc.

Existing & Proposed

Existing

Sr. no.	Source of emission With Capacity	Stack Height (meter)	Type of Fuel	Quantity of Fuel MT/Day	Type of emissions i.e. Air Pollutants	Air Pollution Control Measures (APCM)
1	Boiler (500 Kg/hr)	20	Natural Gas	40 m <sup>3</sup> /hr	PM: 150 <sup>3</sup> mg/Nm SO <sub>2</sub> : 100 ppm NOx: 50 ppm	Adequate Stack Height
2	Hot Air Generator	20	Natural Gas	18 m <sup>3</sup> /hr	PM: 150 <sup>3</sup> mg/Nm SO <sub>2</sub> : 100 ppm NOx: 50 ppm	Adequate Stack Height

Proposed

Sr. no.	Source of emission With Capacity	Stack Height (meter)	Type of Fuel	Quantity of Fuel MT/Day	Type of emissions i.e. Air Pollutants	Air Pollution Control Measures (APCM)
1	Spin Flash Dryer	20	Natural Gas	20 m <sup>3</sup> /hr	PM: 150 mg/Nm <sup>3</sup> SO <sub>2</sub> : 100 ppm NOx: 50 ppm	Adequate Stack Height

E-3 Process gas i.e. Type of pollutant gases (SO<sub>2</sub>, HCl, NH<sub>3</sub>, Cl<sub>2</sub>, NO<sub>x</sub> etc.)

Existing & Proposed

Sr. no.	Specific Source of emission (Name of the Product & Process)	Type of emissions i.e. Air Pollutants (SO <sub>2</sub> , HCl, Cl etc.)	Stack/Vent Height (meter)	Air Pollution Control Measures (APCM)
1	--	--	--	--
2				

Note:

- Details of gaseous raw materials used in proposed project
- Estimation of process gas emission (Product wise and Total)
- Requirement of the scrubbing media (KL per Day) considering solubility (Product wise and Total)-Not Applicable
- Yearly generation of all bleed liquors (MT/KL per Annum) as mentioned above and its sound management in HW matrix.

E-4

Fugitive emission details with its mitigation measures.

- Airborne dust at all transfers operations/ points will be controlled either by spraying water or providing enclosures.
- Raw materials loading and unloading will be done in covered area
- Care will be taken to store construction material properly to prevent fugitive emissions, if any.
- Regular maintenance of valves, pumps, flanges, joints and other equipment will be done to prevent leakages and thus minimizing the fugitive emissions of VOCs.
- Entire process will be carried out in the closed reactors with proper maintenance of pressure and temperature.
- Periodic monitoring of work area will be carried out to check the fugitive emission.
- To eliminate chances of leakages from glands of pumps, mechanical seal will be

provided at all solvent pumps.

- Minimum number of flanges, joints and valves in pipelines.
- Enclosures to chemical storage area, collection of emission from loading of raw materials in particular solvents through hoods and ducts by induced draft, and control by scrubber / dust collector to be ensured.
- Adequate ventilation will be provided.
- Periodic monitoring of work area will be carried out to check the fugitive emission as per the norms of Gujarat Factory Rules.

**F HAZARDOUS WASTE**

**Hazardous waste Management**

(As per the Hazardous and Other Wastes (Management and Transboundary Movement) Rules 2016.

**Note:**

- Priorities for HW Management: Pre-processing, Co-Processing, Reuse/Recycle within premises, Sell out to actual users having Rule-9 permission, TSDF/CHWIH.
- Quantification of hazardous waste shall be based on mass balance and calculations shall be incorporated in EMP details separately.
- Disposal to scrap vendors/vendors/traders is not allowed

**F-1 Hazardous waste management matrix**

**Existing & Proposed**

Sr. no.	Type/Name of Hazardous waste	Specific Source of generation (Name of the Activity, Product etc.)	Category and Schedule as per HW Rules.	Quantity (MT/Annum)			Management of HW
				Existing	Proposed	Total	
1	Discarded containers /Drums / Bags / Liners	Raw Material Containers /Bags	Sch-(I)-33.1	6.0	2.0	8.0	Decontamination, Storage, Transportation and Reuse / Sale to authorized Scrap Vendor
2	ETP Waste	From ETP	Sch-(I)-35.3	0.3	3.3	3.6	Collection, Storage, disposal by Reprocess / Blend with finished product (Beta Blue).
3	Used Oil	From Machineries	Sch-(I)-5.1	--	0.5	0.5	Collection, Storage, Transportation, Reuse and sale to authorized recycles.

-							
F-2	Membership details of TSDF, CHWIF etc. (For HW management)						
Details of Membership letter no. & Date with spare capacity of the Common Facility. ➤ Not applicable							
F-3	Details of Non-Hazardous waste & its disposal (MSW and others)						
	Sr. no.	Type/Name of Other wastes	Specific Source of generation (Name of the Activity, Product etc.)	Quantity (MT/Annum)			Management of Wastes
				Existing	Proposed	Total	
	1	--	--	--	--	--	--
G	SOLVENT MANAGEMENT, VOC EMISSIONS etc.						
G-1	Brief Note on types of solvents, Details of Solvent recovery, % recovery, reuse of recovered Solvents etc. ➤ Not applicable, as there shall be no Solvent generated						
G-2	Brief Note on LDAR proposed: ➤ Not applicable, as there shall be no Solvent generated						
G-3	VOC emission sources and its mitigation measures						
<p>During operation stage, leakage through valves/pumps, leakage and emission from open drum containing chemicals, open feeding, storage tanks, etc. will be major sources of fugitive emissions and VOCs.</p> <p>➤ Solid raw material charging will be done through closed system.</p> <ul style="list-style-type: none"> <li>Entire process will be carried out in the closed reactors with proper maintenance of pressure and temperature.</li> <li>Close feeding system will be provided for centrifuges.</li> <li>Fugitive emission over reactors, formulation areas, centrifuges, chemical loading, transfer area, will be collected through hoods and ducts by induced draft and controlled by scrubber/dust collector.</li> <li>Control by having proper scrubbing system.</li> <li>Condenser to trap VOC.</li> <li>Enclosures to chemical storage area, collection of emission from loading of raw materials in particular solvents through hoods and ducts by induced draft, and control by scrubber/dust collector to be ensured.</li> <li>Proper maintenance schedule will be adhered to avoid emissions through flange joints, pump seals etc.</li> <li>Minimum number of flanges, joints and valves in pipelines.</li> <li>Proper gland packing will be maintained for pumps and valves and to the extent possible pumps with mechanical seal.</li> <li>All the raw materials will be pneumatically transfer to the reactor.</li> <li>All rotating equipments like pumps will be installed with mechanical seals to arrest any sort of emissions.</li> <li>A regular preventive maintenance schedule will be in place to replace or rectify all gaskets and joints etc. as a part of ISO systems to ensure no fugitive emissions take place.</li> <li>Periodic monitoring of work area will be carried out to check the fugitive emission.</li> <li>Adequate ventilation will be provided.</li> </ul>							

- Airborne dust at all transfers operations/ points will be controlled either by spraying water or providing enclosures.

H HEALTH & SAFETY

H-1 Details of Occupational Health Centre (OHC):

Number of permanent Employee :	15
Number of Contractual person/Labour :	5
Area provided for OHC:	30 Sq. meter
Number of First Aid Boxes :	5
Nearest General Hospital :	Astha Hospital & Emergency Centre 3.86 Km
Name of Antidotes to be store in plant :	Lime milk or a soda ash solution while slowly stirring it, and then dilute it with a large quantity of water

H-2 Details regarding storage of Hazardous chemicals  
(For tank storages only including spent acid and spent solvent tanks)

Sr. no	Name of Chemical	Capacity of Tank	Number of Tanks	Hazardous Characteristics of Chemical
1	Not Applicable			

Brief note on storage of Hazardous chemicals in Tanks

- Not Applicable

Brief note on storage of Hazardous chemicals other than Tanks i.e. Drum, Barrels, Carboys, Bags etc.

- Proper ventilation will be provided in storage area.
- Proper label and identification board /stickers will be provided in the storage area.
- Conductive drum pallets will be provided.
- Drum handling trolley / stackers/forklift will be used for drum handling.
- Separate dispensing room with local exhaust and static earthing provision will be made.
- Materials will be stored as per its compatibility study and separate area will be made for

flammable, corrosive and toxic chemical drums storage.

- FLP type light fittings will be provided.
- Smoking and other spark, flame generating items will be banned from the Gate.

Safety details of Hazardous Chemicals:

Type of Hazardous Chemicals	Safety measures
Hydrochloric Acid	<ul style="list-style-type: none"> <li>• Wear a chemical-resistant apron, chemical-resistant gloves and chemical splash goggles at all times when handling HCl to protect your eyes and skin.</li> <li>• Concentrated hydrochloric acid is toxic if inhaled, so avoid breathing it in and always handle it while under a fume hood.</li> <li>• Determine if you can use a less hazardous substance than hydrochloric acid</li> <li>• Ensure that a written experimental protocol including safety information is available</li> <li>• Identify the location of the nearest eyewash and shower and verify that they are accessible</li> <li>• Locate and verify that appropriate spill cleanup materials are available, including the following:               <ul style="list-style-type: none"> <li>• PPE: acid gloves (see “During Work“ section below),</li> <li>• safety glasses and face shield and an acid apron over a lab coat</li> <li>• Acid neutralizer</li> <li>• A plastic scrapper (if acid neutralizer is a solid material)</li> <li>• Universal absorbent pads if acid neutralizer (with color indicator) is a liquid</li> <li>• Hazardous waste bags and hazardous waste labels</li> </ul> </li> </ul>

- Applicability of PESO :

H-3	Types of hazardous Processes involved and its safety measures: (Hydrogenation process, Nitration process, Chlorination process, Exothermic Reaction etc.)
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Type of Process	Safety measures including Automation

	Not Applicable																			
H-4	Details of Fire Load Calculation																			
-	<table border="1"> <tr> <td>Total Plot Area:</td> <td>2600 Sq. mt.</td> </tr> <tr> <td>Area utilized for plant activity:</td> <td>152.4 Sq. mt</td> </tr> <tr> <td>Area utilized for Hazardous Chemicals Storage:</td> <td>135.6 Sq. mt.</td> </tr> <tr> <td>Number of Floors:</td> <td>G+2 floor</td> </tr> <tr> <td>Water requirement for firefighting in KLD :</td> <td>50 KLD*2</td> </tr> <tr> <td>Water storage tank provided for firefighting in KLD:</td> <td>100 KLD</td> </tr> <tr> <td>Details of Hydrant Pumps:</td> <td>Kirlosker make one fire pump (15 m<sup>3</sup>/hr-88 meter head) and One Jocky pump (12 m<sup>3</sup>/hr - 63 meter head) will be provided</td> </tr> <tr> <td>Nearest Fire Station :</td> <td>3.6 Kms- DPMC Fire station</td> </tr> <tr> <td>Applicability of Off Site Emergency Plan:</td> <td> <ul style="list-style-type: none"> <li>Available specialized equipments of fire fighting equipments, breathing apparatus, cranes, dozens ambulance etc.</li> <li>Plans of evacuation, safe routes, medical treatment and rehabilitation.</li> </ul> </td> </tr> </table>		Total Plot Area:	2600 Sq. mt.	Area utilized for plant activity:	152.4 Sq. mt	Area utilized for Hazardous Chemicals Storage:	135.6 Sq. mt.	Number of Floors:	G+2 floor	Water requirement for firefighting in KLD :	50 KLD*2	Water storage tank provided for firefighting in KLD:	100 KLD	Details of Hydrant Pumps:	Kirlosker make one fire pump (15 m <sup>3</sup> /hr-88 meter head) and One Jocky pump (12 m <sup>3</sup> /hr - 63 meter head) will be provided	Nearest Fire Station :	3.6 Kms- DPMC Fire station	Applicability of Off Site Emergency Plan:	<ul style="list-style-type: none"> <li>Available specialized equipments of fire fighting equipments, breathing apparatus, cranes, dozens ambulance etc.</li> <li>Plans of evacuation, safe routes, medical treatment and rehabilitation.</li> </ul>
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H-5	Details of Fire NOC/Certificate:																			

- During meeting, Committee noted that PP has addressed specific ToR compliance and revised flue gas emission matrix with mentioning adequate stack height. Looking to ToR compliance for CER showing only details of tree plantation in Uchchhali village but Uchchhali gram panchayat letter not submitted by PP, ToR regarding renewable energy showing general details in place of utilization of renewable energy considering maximum extent for proposed project and area adequacy with land break up and layout plan with color coding for existing and proposed infrastructure, Hazardous chemical and raw material storage considering type of Hazard and worst case scenario.

**After detailed discussion, Committee unanimously decided to consider the project in one of**



**upcoming meeting after submission of following documents:**

1. Readdress ToR no-2 for expansion project area adequacy along with revised layout plan with mentioning adequate size peripheral road and internal road ,color coding for existing and proposed infrastructure, storage area of Hazardous chemicals and raw material storage considering type of hazard and worst case scenario ,adequate details of storage tank to be installed and revised area adequacy considering it.
2. Readdress ToR no-1 with Uchchhali village gram panchayat letter mentioning details of tree plantation area, mentioning longitude and latitude in place of simply mentioning tree plantation in Uchchhali village periphery and notarised undertaking for greenbelt development and its maintenance and conservation responsibility for green belt development, outside premises.
3. Readdress ToR no-3 with mentioning explore the use of renewable energy efficient to the maximum extent possible in place of general details of solar renewable energy.

9.	SIA/GJ/IND2/54930/2020	<b>M/s. KINJAL CHEMICALS, UNIT-4</b>  Plot No. C/1/B-145/1, GIDC Estate, Naroda, Ahmedabad, Gujarat-382330	EC-Reconsideration
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Category of the unit: **5(f)**

Project status: **New**

- Project proponent (PP) has submitted online application vide no. SIA/GJ/IND2/54930/2020 on dated 30.09.2020 for obtaining Environmental Clearance.
- SEIAA issued TOR to PP vide their letter dated 05/06/2020.
- Project proponent has submitted EIA Report prepared by B.S.Rana based on the TOR issued by SEIAA.
- This is a new unit proposes for manufacturing of synthetic organic chemicals as below:

Sr. No.	Name of the Products	CAS no. /CI no.	Quantity MT/Month	End-use of products
1	Resist salts	127-68-4	200	It is used for Manufacturing various Intermediate for Dyes, Oxidizing Agent for Electroplating, Auxiliary for Printing Fabrics.
2	Metanilic Acid Liquid	121-47-1	200	It is used in printing on paper, dyeing on fibres, silk, Wool, nylon, silk, paper, ink, aluminum, detergent, wood, fur, cosmetics, biological stain etc
3	Aniline 2-5 Disulphonic Acid	98-44-2	400	It is used as Intermediate of Dye Stuffs, Optical Whitening Agent, Acid Film Orange P
4	Aniline 2-4 Disulphonic	137-51-9		It is used as Lubricants, food;

	Acid			Physical Form Powder.
5	Metanilic Acid Powder	121-47-1	200	To manufacture various Dyes & Dyes Intermediate
	Meta Amino Phenol	591-27-5		It is use the synthesis of 3-(diethylamino)phenol, key intermediate for the preparation of several <u>fluorescent dyes</u> . It is used as hair dye colorants and <u>stabilizers for chlorine-</u>
	Total		1000 MT/Month	
Note: 600 MT/Month (Worst-case scenario - considering 2 products can be manufacturing at a time.)				

- The project falls under B1 category of project activity 5(f) as per the schedule of EIA Notification 2006.
- PP was called for presentation on SEAC video conference meeting dated 10.02.2021.
- During the SEAC Video conference meeting dated 10.02.2021, Project Proponent (PP) and their technical expert and EIA consultant, B. S. Rana remain present and made technical presentation before the Committee.
- This is Greenfield project proposal for manufacturing of Synthetic Organic Chemicals at GIDC Naroda. Source of water supply is GIDC.
- Upon asking regarding QCI/NABET accreditation for preparation of EIA preparation for proposed project, technical expert of PP informed that they have not obtained QCI/NABET accreditation for preparation of EIA/EMP report as per the amended EIA Notification vide S.O. 648 (E) Dated 03.03.2016. Also technical expert of PP informed that they have submitted EC application for proposed project before 24/11/2020 in which *minutes of meeting of MoEF&CC (IA Division-Industry-2 Chemical Sector) shown that MOEFF&CC has insisted on QCI/ NABET accredited consultants and refused to consider/ entertain the proposals which were not prepared by QCI/ NABET accredited consultants. Committee asked for chronology of proposed project EC application starting from obtaining ToR for proposed project and primary data and secondary data baseline data used in EIA preparation.*
- Committee observed that details submitted as disclosure of consultants is inadequate. They have not mention EIA Co-Coordinator and specific area experts.
- Details furnished in EIA/EMP report are very sketchy and does not provide sufficient information regarding Environmental Management, Safety and Health aspects.
- Committee observed that reports/submissions are distinctly deficient in quality, are not reflecting environmental concerns and the projected scenario for all the environmental components and its mitigation measures.
- **After deliberation, SEAC unanimously decided to defer the proposal and consider the same in one of the upcoming meeting of SEAC after satisfactory submission of following details:**
  1. Authenticated documents regarding Consultants/Laboratory which primary and secondary data utilization for preparation of EIA report for proposed project and *chronology of proposed project EC*

*application starting from obtaining ToR for proposed project.*

2. Details submitted as disclosure of consultants for EIA Co-Coordinator and specific area experts for preparation of EIA report is inadequate.

- PP submitted the reply of the said points along with other supporting documents.
- This proposal is reconsidered in SEAC meeting dated 12.04.2021. PP along with their technical expert/consultant from M/s B S Rana remains present in the meeting and made presentation before committee.
- During meeting dated: 12.04.2021, PP presented the following details:
  - ✓ Chronology of TOR and EC applications.
  - ✓ High court stay order regarding QCI/NABET accredited consultant.
  - ✓ Certificate of NABL accredited laboratory.
  - ✓ Details of EIA Co-Coordinator and specific area experts.
  - ✓ Revised Site Plan/ layout with floor plans and with provision of 4 m wide peripheral road for emergency exit, OHC (50 Sq m), production plant, utility, ETP, tank farm areas, 33 % greenbelt within premises, etc. Upon asking regarding provision of two staircase of 2 m width on opposite sides for emergency exit on each floor, PP could not reply satisfactorily.
  - ✓ Product profile with specific end-use of product. PP presented that at a time, any two product can be manufactured. Upon asking regarding maximum quantity of product that can be manufactured at a time, PP could not reply satisfactorily.
  - ✓ Details of storage of hazardous chemicals in tanks i.e oleum, HCl, Sulhuric acid etc. Upon asking regarding spare of oleum with its safety measures, PP could not reply satisfactorily.
- Committee noted that there are mistakes in presentation made by the consultant and PP was flagging the error and informed the Committee that they have earlier asked the consultant to correct the information before submitted it to SEAC. Committee noted that there is an issue of lack of congruence between the Project proponent and the Consultant.
- Committee also observed that the details regarding total capacity of products and raw materials are mismatching. Committee felt that deliberate errors, if addressed can go a long way in reducing the timelines. Committee emphasized that improved report will not only reduce the timeline with respect to appraisal process of SEAC but will also improve the credibility of Consultants. Looking to the casual approach of the EIA consultant and raising confusion by providing inadequate information, Committee unanimously decided to stop the presentation.

**After deliberation, Committee decided to defer the case again and consider the proposal in one of the upcoming SEAC meeting after submission of revised presentation.**

- PP submitted their reply for the query raised by SEAC during SEAC meeting dated 12.04.2021 through email.
- The proposal was reconsidered in the SEAC video conference meeting dated 17.06.2021.
- During the meeting dated 17.06.2021, the project was appraised based on the information furnished in Form

– 1, Pre-Feasibility Report, Environment Management Plan and details submitted by e-mail.

- Project proponent (PP) and their Technical Expert from M/s. B.S.Rana remains present during video conference meeting.
- Committee noted that technical expert of PP presented reply of query is quite different from query raised by Committee members during meeting dated 12/04/2021. Hence Committee asked this type of mistake is considered as serious matter and due to such type of mistake project proponent is suffered due to delay for hears appraisal case. Then after request of project proponent, Committee members agree for heard appraisal case.
- Committee noted the following:
  - ✓ Product profile discussed in depth. PP informed that they have submitted revised product profile with discontinue of Resorcinol as product.
  - ✓ Site Plan/ layout with fire plan & floor plans with provision of separate entry & exit. Also presented area adequacy for storage of finished goods, raw material, drums, tank farm and hazardous waste, etc. Layout plan showing different number of storage tank and land break up for area adequacy showing different storage tank for hazardous chemical storage.
  - ✓ Total industrial effluent will be segregated and high COD stream will be sent to common spray dryer facility after ETP and RO plant treatment and low COD stream will be reused back in process after ETP and RO plant treatment.
  - ✓ Natural gas is proposed as fuel for boiler, TFH and HAG but adequate stack is not proposed for it.
  - ✓ Two stage scrubbing system as APCM proposed for each process stack.
  - ✓ EMP in which not mentioned auto control cost for critical process like sulphonation.
  - ✓ PP has not submitted changes made due to removal of Resorcinol product from product profile in Water, Air, Hazardous waste, EMP and greenbelt area.
- Looking to presentation submitted by technical expert of PP is found inadequate, Committee asked to submit (1) Revised layout plan with mentioning adequate size peripheral road and internal road , revised green belt area, secure distance of storage area of Hazardous chemicals from proposed process area ,adequate details of storage tank to be installed and revised area adequacy considering it (2) Details regarding changes in Water , Air , Hazardous waste and EMP before removal of Resorcinol product and after removal of Resorcinol product from product profile in tabular form and Addendum to changes made in EIA report due to removal of Resorcinol as product (3) Revised EMP with mentioning adequate auto control cost for critical process and fire hydrant network and fire extinguisher cost in EMP(4) revised air matrix with adequate fuel consumption details considering capacity of boiler and adequate stack height for it (4) adequate details of risk assessment for Hazardous chemicals storage and its safety measures with superimposition of dispersion model for it on proposed project area and its impact on surrounding habitat and its mitigation measures for proposed project . (5) Readdress specific ToR for renewable energy adoption for proposed project instead of general details of it. (6) Membership certificate of Common spray dryer for effluent disposal like booked load quantity in KL/Day, spare capacity, Consented capacity etc and TSDF site membership certificate for Hazardous Waste disposal.

• After presentation made by technical expert of PP, Committee felt that eventhough many times informed technical expert of PP regarding adequate presentation and document submission like adequate common facility membership certificate for effluent and Hazardous waste disposal, technical expert of PP comes in meeting without preparation for proposed project and this project is heard many times by Committee and still no positive output comes for proposed project appraisal case. Hence Committee members informed technical expert of PP for last chance given to heard this project only after come with proper preparation for proposed project along with adequate document like valid and adequate common facility membership certificate and presentation of proposed project

After detailed discussion, Committee unanimously decided to consider the project in one of upcoming meeting after submission of following documents:

1. Revised layout plan with mentioning adequate size peripheral road and internal road , revised green belt area, secure distance of storage area of Hazardous chemicals from proposed process area ,adequate details of storage tank to be installed and revised area adequacy considering it.
  2. Details regarding changes in Water , Air , Hazardous waste and EMP before removal of Resorcinol product and after removal of Resorcinol product from product profile in tabular form and Addendum to changes made in EIA report due to removal of Resorcinol as product.
  3. Revised EMP with mentioning adequate auto control cost for critical process and fire hydrant network and fire extinguisher cost in EMP.
  4. Revised air matrix with adequate fuel consumption details considering capacity of boiler and adequate stack height for it.
  5. Adequate details of risk assessment for Hazardous chemicals storage and its safety measures with superimposition of dispersion model for it on proposed project area and its impact on surrounding habitat and its mitigation measures for proposed project.
  6. Readdress specific ToR for renewable energy adoption for proposed project instead of general details of it.
  7. Membership certificate of Common spray dryer for effluent disposal like booked load quantity in KL/Day, spare capacity, Consented capacity etc and TSDF site membership certificate for Hazardous Waste disposal.
- PP submitted their reply for the query raised by SEAC during SEAC meeting dated 17.06.2021 through email.
  - The proposal was reconsidered in the SEAC video conference meeting dated **05.08.2021**.
  - Revised Salient features of the project including Water, Air and Hazardous waste management are as under:

Sr. no.	Particulars	Details		
A-1	Total cost of Proposed Project (Rs. in Crores):	<table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td>Total Project Cost</td> </tr> <tr> <td style="text-align: center;">4.75 Crores</td> </tr> </table>	Total Project Cost	4.75 Crores
Total Project Cost				
4.75 Crores				

Break-up of proposed project Cost:

Details	Project Cost (Rs. In Crores)
Land	1
Building	2
Machinery	1.56
Other	0.19
Total	4.75

A-2 Details of Environmental Management Plan (EMP) As below:

Sr. No	Unit	Detail	Capital Cost (Rs. In Lakh)	Operating Cost	Maintenance Cost	Total Recurring Cost
				(Rs. In Lakh)	(Rs. In Lakh)	(Rs. In Lakh)
1	Waste Water	ETP	15	1	1	2
2	Air	APCM	18	2	2	4
3	Noise Pollution Control	Enclosures	1	0.5	0.5	1
4	Rain Water Harvesting	Percolation well	2	0.5	0.5	1
5	AWH Monitoring	Laboratory	1	0.5	0.5	1
6	Fire & Safety	Fire Hydrant and Maintanance	12	2	2	4
7	Green Belt Development	Plant	1	0.5	0.5	1
8	Occupational Health	Medical Checkup	1	0.5	0.5	1
9	Process Control	Integrated DCS (Distributed Control System)	10	1.0	1.0	2
10	CER		9.5	-	-	-
Total			70.5	8.5	8.5	17

Summary

Cost of Project in Crores per Annum:	4.75
EMP Capital Cost in Crores per Annum and Percentage:	0.705 (14.84 %)
EMP Recurring Cost in Crores per Annum and Percentage:	0.17 (3.58 %)

A-3 Details of CER as per OM dated 01/05/2018

% as per the OM	Rs. in Crores
2 %	0.095

In case of more than % as per the OM, mention the same.

Brief note on proposed activities for CER:

Sr. No.	Planned activities under CER as per specific needs at nearest villages	Budget (Rs)					Total
		1 <sup>st</sup> year	2 <sup>nd</sup> year	3 <sup>rd</sup> year	4 <sup>th</sup> year	5 <sup>th</sup> year	
		(2021)	(2022)	(2023)	(2024)	(2025)	
1	Green Belt Development (1000 trees) Village: Bilasiya, Enasan	100,000	100,000	100,000	100,000	100,000	500,000
2	Rain Water Harvesting at 4 Nos. of units Village: Bilasiya, Enasan	100,000	110,000	120,000	120,000	-	450,000
TOTAL		200,000	210,000	220,000	220,000	100,000	950,000

B Land / Plot ownership details:

B-1 Plot area

Total Plot area
1257 Sq. m.

B-2 Brief note on Area adequacy in line to proposed project activities:

B-3 Green belt area

	Total (Sq. meter)
Area in Sq. meter	420
% of total area	33.41

In case of GREEN-BELT partly outside premises, give complete details like exact location (Lat-Long), Agreement/MoU with specific area etc.

C Employment generation

Total
25

In case of Indirect employment, Give details.

D WATER

D-1 Source of Water Supply

	(GIDC, Bore well, Surface water, Tanker supply etc...) GIDC Naroda Status of permission from the concern authority. ➤ GIDC is supplying once obtaining GPCB CTE, CC&A.																																	
D-2	Water consumption (KLD)																																	
	<table border="1"> <thead> <tr> <th>Category</th> <th>Quantity KLD</th> <th>Remarks</th> </tr> </thead> <tbody> <tr> <td>(A) Domestic</td> <td>2.5</td> <td>2.5 KLD fresh</td> </tr> <tr> <td>(B) Gardening</td> <td>0.5</td> <td>0.5 KLD fresh</td> </tr> <tr> <td>(C) Industrial</td> <td></td> <td></td> </tr> <tr> <td>Process</td> <td>86</td> <td>36 KL fresh + 50 KL recycle</td> </tr> <tr> <td>Washing</td> <td>12</td> <td>12 KL fresh</td> </tr> <tr> <td>Boiler</td> <td>5</td> <td>5 KL fresh</td> </tr> <tr> <td>Cooling</td> <td>24</td> <td>9 KL fresh + 15 KL recycle</td> </tr> <tr> <td>Others (Scrubber)</td> <td>3</td> <td>3 KL fresh</td> </tr> <tr> <td>Industrial Total</td> <td>130</td> <td>-</td> </tr> <tr> <td>Total (A + B + C)</td> <td>133</td> <td>-</td> </tr> </tbody> </table>	Category	Quantity KLD	Remarks	(A) Domestic	2.5	2.5 KLD fresh	(B) Gardening	0.5	0.5 KLD fresh	(C) Industrial			Process	86	36 KL fresh + 50 KL recycle	Washing	12	12 KL fresh	Boiler	5	5 KL fresh	Cooling	24	9 KL fresh + 15 KL recycle	Others (Scrubber)	3	3 KL fresh	Industrial Total	130	-	Total (A + B + C)	133	-
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Industrial Total	97	-																																
Total (A + B + C)	99	-																																
	<p>Brief Note on worst case scenario for waste water generation(Qualitative and Quantitative):</p> <p>➤ Total effluent generation from proposed facility will be 99 KLD (2.0 KLD of Domestic + 97 KLD of Industrial). 82KLD wastewater generation from process &amp; scrubber will be treated in primary ETP-1 and will pass through the R.O. System. 32 KLD R.O. permeates will be recycled. 50 KLD R.O. rejected will be discharged to common Spray Drying Facility, Naroda and 15 KLD. Wastewater generated from Boiler, washing and cooling will be treated in ETP-2 and will be recycled. Domestic Wastewater of 2.0 KLD will be treated in STP and used for greenbelt development.</p>																																	
	<p>Brief justification in case of no process effluent generation or no industrial effluent generation or no high concentration effluent generation from proposed project (Whichever is applicable).</p> <p>➤ Not Applicable</p>																																	
D-4	Mode of Disposal & Final meeting point																																	
	-																																	
	<table border="1"> <tr> <td>Domestic:</td> <td>Green belt</td> </tr> <tr> <td>Industrial:</td> <td>Common Spray Drying Facility, Naroda.</td> </tr> </table>	Domestic:	Green belt	Industrial:	Common Spray Drying Facility, Naroda.																													
Domestic:	Green belt																																	
Industrial:	Common Spray Drying Facility, Naroda.																																	



-  
Clearly mention about final disposal

D-5 Treatment facilities

For Domestic waste water:

Capacity of STP: 2 KLD

For Industrial waste water: Treatment facility within premises with capacity [In-house ETP (Primary, Secondary, Tertiary), MEE, Stripper, Spray Dryer, STP etc. Treatment scheme including segregation at source. (Give Characteristics of each stream i.e. COD, BOD, TDS etc.) In case of stream segregation, Separate ETP (ETP-1, ETP-2....) for each stream shall be proposed.

➤ Total effluent generation from proposed facility will be 99 KLD (2.0 KLD of Domestic + 97 KLD of Industrial). 82KLD wastewater generation from process & scrubber will be treated in primary ETP-1 and will pass through the R.O. System. 32 KLD R.O. permeates will be Recycled. 50 KLD R.O. rejected will be discharged to common Spray Drying Facility, Naroda and 15 KLD. Wastewater generated from Boiler, washing and cooling will be treated in ETP-2 and will be recycled. Domestic Wastewater of 2.0 KLD will be treated in STP and recycled for green belt development.

➤

Details	Concentrated stream				Diluted stream	
	Inlet to ETP-1	Primary treated to RO system	Treated RO permeate to reuse	RO concentrated to MEE	Inlet to ETP-2	Primary treated to Reuse
Flow in KL/day	82	82	32	50	15	15
pH	5.5	7.5	7.9	7.0	8.0	7.5
COD in mg/l	13200	7800	640	12200	450	260
BOD in mg/l	2730	1500	81	2400	51	27
TDS in mg/l	21500	20100	2450	31400	2450	2280
SS in mg/l	140	80	35	110	50	10
Oil & Grease mg/l	2	0	0	0	1	0

Note: (In case of CETP discharge) :

Management of waste water keeping in view direction under section 18 (1) (b) of the Water (Prevention and Control of Pollution) act, 1974 issued by CPCB regarding compliance of CETP.

Details	Concentrated stream				Diluted stream	
	Inlet to ETP-1	Primary treated to RO system	Treated RO permeate to reuse	RO concentrated to MEE	Inlet to ETP-2	Primary treated to Reuse
Flow in KL/day	82	82	32	50	15	15
pH	5.5	7.5	7.9	7.0	8.0	7.5
COD in mg/l	13200	7800	640	12200	450	260
BOD in mg/l	2730	1500	81	2400	51	27
TDS in	21500	20100	2450	31400	2450	2280

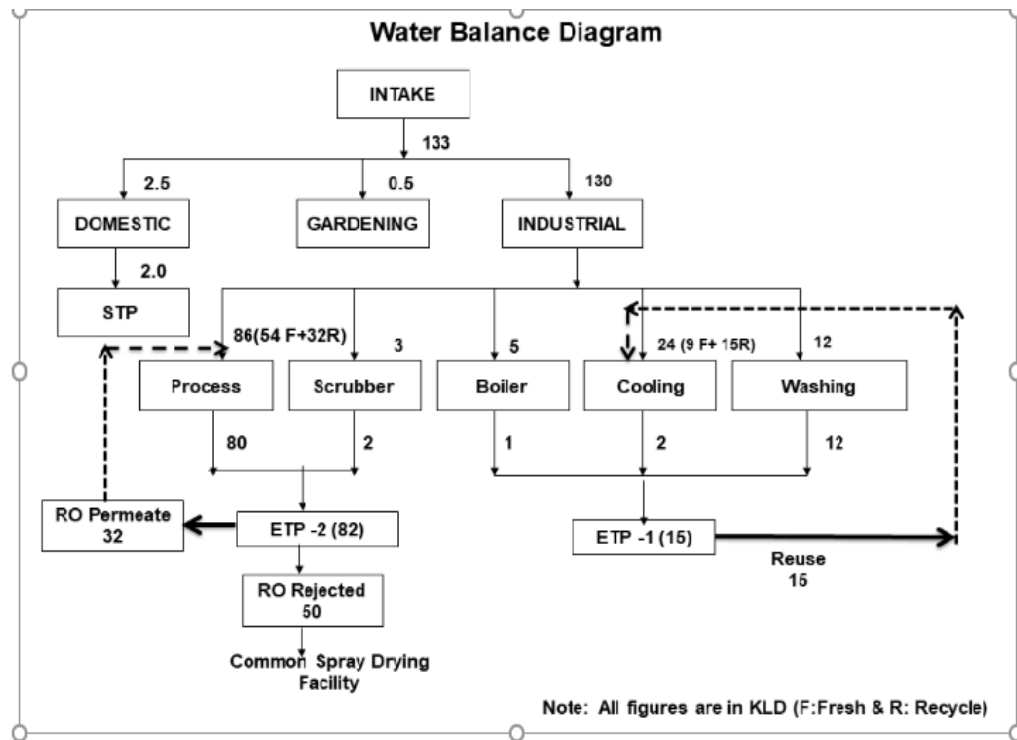
mg/l						
SS in mg/l	140	80	35	110	50	10
Oil & Grease mg/l	2	0	0	0	1	0

**Brief note on adequacy of ZLD (In case of Zero Liquid Discharge):**

➤ Not Applicable

D-6 In case of Common facility (CF) i.e. CETP, Common Spray dryer, Common MEE, CHWIF etc.  
 Name of Common facility (CF) (For waste water treatment)  
 ➤ Membership of Common spray drying facility, Naroda will be carried out.  
 Membership of Common facility (CF) mentioning total capacity, consented quantity, occupied capacity and spare capacity and norms of acceptance of effluent from member units in-line with the direction given by GPCB vide Letter No. GPCB/P-1/8-G (5)/550706 dated 08/01/2020.

D-7 Simplified water balance diagram with reuse / recycle of waste water



E AIR

E-1 Brief Note on fuel based Heat energy requirement and worst case scenario thereof:

Sr. No.	Fuel Based Heat Energy	Proposed Fuel	Calorific Value (kcal/kg)	Working Hours (Worst Case)	Fuel Consumption in worst case
---------	------------------------	---------------	---------------------------	----------------------------	--------------------------------



		Metanilic Acid Powder)			& Alkali Scrubber)
4	Evaporation	Process to remove moisture	SO <sub>2</sub> /NOx/PM	20	Adequate Stack Height
5	SFD	Drying of product	SO <sub>2</sub> /NOx/PM	20	Bag Filter

**Note:**

- Details of gaseous raw materials used in proposed project There shall no use of any gaseous raw materials.
- Estimation of process gas emission (Product wise and Total)
- Gaseous emission due to the Sulphonation process generation Dioxides of sulfure which will be scrubbed by alkali media to achieve the emission norms.
- Requirement of the scrubbing media (KL per Day) considering solubility (Product wise and Total)
- 3 KLD scrubbing media will be required.
- Yearly generation of all bleed liquors (MT/KL per Annum) as mentioned above and its sound management in HW matrix.
- All bleed liquors (MT/KL per Annum) as mentioned in HW matrix

E-4 Fugitive emission details with its mitigation measures.

F Hazardous waste  
(As per the Hazardous and Other Wastes (Management and Transboundary Movement) Rules 2016.  
Note:

- Priorities for HW Management: Pre-processing, Co-Processing, Reuse/Recycle within premises, Sell out to actual users having Rule-9 permission, TSDF/CHWIH.
- Quantification of hazardous waste shall be based on mass balance and calculations shall be incorporated in EMP details separately.
- Disposal to scrap vendors/vendors/traders is not allowed

F-1 Hazardous waste management matrix

Sr. No.	Type/Name of Hazardous waste	Specific Source of generation (Name of the Activity, Product etc.)	Category and Schedule as per HW Rules.	Quantity (MT/Annum)	Management of HW
1.	ETP Sludge	ETP	Category No.34.3	1080	Collection, storage, transportation, disposal at the approved TSDF site
2.	Gypsum Sludge	Production of Metallic Acid , Resist salts	Category No. 26.1	11760	Collection, Storage, Transportation, Disposal to the cement factory for co-processing.

3.	Iron Sludge	Production of Metallic Acid, MAP	Category No. 26.1	6553	Collection, Storage, Transportation, Disposal to the cement factory for co-processing.
4.	Spent Sulphuric Acid	Production of Aniline 2:4,2:5 Disulphonic Acid	Category No. D2 of Schedule-II	4128	Collection, storage, transportation, sold to Cement Industry or Send to Vendors under rule-9
5.	Inorganic Salt KCl	Production of MAP	--	310	Collection, Storage, Transportation & entire quantity will sell to actual user under Rule 9.
6.	Sodium Bisulphite	Scrubber	D2 of Sch=II	390	Collection, Storage, Transportation & entire quantity will be utilized in process or sell to actual user under Rule 9.
8.	Discarded Container	Raw Materials	Category No. 33.3	50	Collection, storage, Reuse within premises or sell to registered recycler.
9	Used Oil	DG set Operation	Category No. 5.1	0.1	Collection, storage, Reuse within premises or sell to registered re-refiner.
F-2	Membership details of TSDF, CHWIF etc. (For HW management)				
Details of Membership letter no. & Date with spare capacity of the Common Facility.					
F-3	Details of Non-Hazardous waste & its disposal (MSW and others)			Non Hazardous recycling waste will be sold to the registered recycler.	
	Sr. no.	Type/Name of Other wastes	Specific Source of generation (Name of the Activity, Product etc.)	Quantity (MT/Annum)	Management of Wastes
	1	Paper & Plastic	Office work	1.0	Sold to actual user

G	Solvent management, VOC emissions etc.
G-1	Brief Note on types of solvents, Details of Solvent recovery, % recovery, reuse of recovered Solvents etc.
	➤ Not Applicable
G-2	Brief Note on LDAR proposed:
	➤
G-3	VOC emission sources and its mitigation measures
	➤ Not Applicable
H	SAFETY details
H-1	Details regarding storage of Hazardous chemicals (For tank storages only including spent acid and spent solvent tanks)

Sr.no	Name of Chemical	Capacity of Tank	Number of Tanks	Hazardous Characteristics of Chemical
1	Sulphuric Acid	20 KL	2	Toxic
2	Oleum	30 KL	1	Toxic
3	HCl	20 KL		Toxic
4	Nitro benzene	20 KL	1	Toxic
5	Spent Acid	20 KL	2	Toxic
6	Imergency Tank	20 KL	2	-
	Total		9	

Brief note on storage of Hazardous chemicals in Tanks

- All chemicals storage tank keep in a separate tank.
- Spare storage tank will keep for Oleum.

Brief note on storage of Hazardous chemicals other than Tanks i.e. Drum, Barrels, Carboys, Bags etc.

- Safety Measures for Drum Storage area:
- Some chemicals will be received at plant in drums by road truck and stored in a separate drum storage area.
- FLP type light fittings will be provided.
- Proper ventilation will be provided in go down.
- Proper label and identification board /stickers will be provided in the storage area.
- Conductive drum pallets will be provided. ) Drum handling trolley / stackers/fork lift will be used for drum handling. Separate dispensing room with local exhaust and static earthing provision will be made.
- Materials will be stored as per its compatibility study and separate area will be made for flammable, corrosive and toxic chemical drums storage.
- Smoking and other spark, flame generating item will be banned from the Gate.

Safety details of Hazardous Chemicals:

Type of Hazardous Chemicals	Safety measures
	Safety measures for Acid storage Tank: <ul style="list-style-type: none"> <li>• Storage tank will be stored away from the process plant.</li> <li>• Tanker unloading procedure will be prepared and implemented.</li> <li>• Caution note and emergency handling procedure will be displayed at unloading area and trained all operators.</li> <li>• NFPA label will be provided.</li> </ul>

	<ul style="list-style-type: none"> <li>• Required PPEs like full body protection PVC apron, Hand gloves, gumboot, Respiratory mask etc. will be provided to operator.</li> <li>• Neutralizing agent will be kept ready for tackle any emergency spillage.</li> <li>• Safety shower, eye wash with quenching unit will be provided in acid storage area.</li> <li>• Material will be handled in close condition in pipe line. Dyke wall will be provided to all storage tanks, collection pit with valve provision.</li> <li>• Double drain valve will provided.</li> <li>• Level gauge will be provided on all storage tanks.</li> <li>• Safety permit for loading unloading of hazardous material will be prepared and implemented. TREM CARD will be provided to all transporters and will be trained for transportation Emergency of Hazardous chemicals.</li> <li>• Fire hydrant system with jockey pump as per TAC norms will be installed.</li> </ul>	
➤ Applicability of PESO : Not Applicable		
H-2	Types of hazardous Processes involved and its safety measures: (Hydrogenation process, Nitration process, Chlorination process, Exothermic Reaction etc.)	
-		
Type of Process	Safety measures including Automation	
Sulphonation	Provision of Safety valve & rupture disc on reactor. <ul style="list-style-type: none"> <li>• Provision of auto dumping vessel.</li> <li>• Required PPEs like full body protection PVC apron, Hand gloves, gumboot, Respiratory mask etc. will be provided to operator. Neutralizing agent will be kept ready for tackle any emergency spillage.</li> <li>• Safety Shower and eye wash will be provided near process area. Caution note and emergency first aid will be displayed and train for the same to all employees.</li> <li>• First Aid Boxes will be available in process area.</li> <li>• Emergency organization and team will be prepared as per On site-Off site emergency planning.</li> <li>• Emergency team will be prepared and trained for scenario base emergency. Like Toxic control team, Fire control team, First aid team, communication and general administration team, Medical team etc.</li> <li>• Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.</li> <li>• Use water spray to reduce vapors; do not put water directly on leak, spill area or inside container. Keep combustibles (wood, paper, oil, etc.) away from spilled material.</li> <li>• Cover with DRY earth, DRY sand or other non-combustible material followed with plastic sheet to minimize spreading or contact with rain.</li> </ul>	
•		
H-3	Details of Fire Load Calculation	
-		
Total Plot Area:		1257
Area utilized for plant activity:		57
Area utilized for Hazardous Chemicals Storage:		120

	Number of Floors:	G+2
	Water requirement for firefighting in KLD :	50 KL
	Water storage tank provided for firefighting in KLD:	100 KL
	Details of Hydrant Pumps:	3 nos.
	Nearest Fire Station :	NarodaFire Station
	Applicability of Off Site Emergency Plan:	Yes
-		
H-4	Details of Fire NOC/Certificate:	
H-5	Details of Occupational Health Centre (OHC):	
-		
	Number of permanent Employee :	25
	Number of Contractual person/Labour :	10
	Area provided for OHC:	50
	Number of First Aid Boxes :	5
	Nearest General Hospital :	NIA Charitable Hospital Naroda GIDC
	Name of Antidotes to be store in plant :	-

- During meeting, Committee noted that PP has addressed revised layout plan with area adequacy, product profile, Details regarding changes in Water , Air , Hazardous waste and EMP before removal of Resorcinol product and after removal of Resorcinol product from product profile in tabular form and Addendum to changes made in EIA report due to removal of Resorcinol as product, revised EMP, revised air matrix, risk assessment for Hazardous chemicals storage and its safety measures with superimposition of dispersion model for it on proposed project area, specific ToR for renewable energy adoption for proposed project and membership certificate of common facility.
- Looking to presentation submitted by technical expert of PP is found still inadequate for details of oleum storage and its risk assessment for various Hazardous chemicals and still addendum to EIA report in tabular form not presented after removal of Resorcinol as product, Committee asked to submit (1) Details in tabular form regarding Addendum to changes made in EIA report due to removal of Resorcinol as product along with mentioning page in which changes made by PP (2) adequate details of risk assessment for Hazardous chemicals like oleum storage and its safety measures with superimposition of dispersion model for it on proposed project area and its impact on surrounding habitat and its mitigation measures for proposed project considering worst case scenario of oleum storage and any leakage and blast in handling and storage tank for oleum with details of population affected in nearby residential habitat of GIDC Naroda area in place of general details of oleum and other hazardous chemical risk assessment

**After detailed discussion, Committee unanimously decided to consider the project in one of upcoming meeting after submission of following documents:**

1. Details in tabular form regarding Addendum to changes made in EIA report due to removal of



Resorcinol as product along with mentioning page in which changes made by PP.

- Adequate details of risk assessment for Hazardous chemicals like oleum storage and its safety measures with superimposition of dispersion model for it on proposed project area and its impact on surrounding habitat and its mitigation measures for proposed project considering worst case scenario of 30 KL of oleum storage and any leakage and blast in handling and storage tank for 30 KL oleum with details of population affected in nearby residential habitat of GIDC Naroda area, in place of general details of oleum and other hazardous chemical risk assessment and safety .

10.	SIA/GJ/IND2/206185/2021	<b>M/s. Nishal Enterprises Pvt. Ltd.</b>  Survey/Block No. 167 (Old Survey/Block No. 110), Village: Vav, Tal: Vagra, Dist: Bharuch-392165.	EC-Reconsideration
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Category of the unit: **5(f)**

Project status: **New**

- Project proponent (PP) has submitted online application vide no. SIA/GJ/IND2/206185/2021 on dated 22/02/2021 for obtaining Environmental Clearance.
- Project proponent has submitted Form – 1, Pre-Feasibility Report & Environment Management Plan as per Notification issued by MoEF&CC vide S.O. 1223(E) dated 27<sup>th</sup> March, 2020 regarding consideration of proposals or activities in respect of Active Pharmaceuticals Ingredients (API) as B2 category.
- This is a new unit proposed for manufacturing of synthetic organic chemicals [**API and Its Intermediates**] as below,

Sr. No.	NAME OF PRODUCT	API Or Intermediate	Cas No.	Quantity MT/Month	Said API is used for/End Use of said API
1.	2,2',4'-Trichloro Acetophenone	Intermediate	4252-78-2	100 MT/Mont h	Miconazole Nitrate/treat vaginal yeast infections
2.	Mefenamic Acid	API	61-68-7		API/relieve mild to moderate pain
3.	Amoxicillin Trihydrate	API	61336-70-7		API/treat many different types of infection caused by bacteria
4.	3-(dimethylamino)-1-(3-methoxyphenyl)-2-methylpropan-1-one	Intermediate	197145-37-2		Tapentadol/ treat moderate to severe acute pain
5.	1-(hydroxycyclohexyl)(4-methoxyphenyl)-acetonitrile	Intermediate	93413-76-4		Venlafaxine/to treat depression
6.	2-dimethylaminomethyl cyclohexanone HCl	Intermediate	42036-65-7		Tramadol/to relieve moderate to moderately severe pain.

7.	Acetic acid 2-[4-(4-chloro-butyryl)-phenyl]-2- methyl-propyl ester	Intermediate	169032-11-5	Fexofenadine/relieve the symptoms  API/to relieve allergy symptoms  Fexofenadine hydrochloride/ to relieve allergy symptoms  Topiramate/treat epilepsy  API/treat non-severe malaria.  Lumefantrine/treat non-severe malaria  API/treatment of premature ejaculation Dapoxetine/treatment of premature ejaculation Lamotrigine/prevent and control seizures. Acetaminophen/treat mild to moderate pain Acetaminophen/treat mild to moderate pain Aripiprazole/ treat certain mental/mood disorders Cilostazol/improve the symptoms of a certain blood flow problem in the legs API/treat a wide variety of bacterial infections API/treat major depressive disorder and seasonal affective disorder.
8.	4-Chloro-1-[4-(2-hydroxy-1,1-dimethyl-ethyl-phenyl)]-butan-1-one	Intermediate	169280-25-5	
9.	2-[4-(4-Chloro-butyryl)-phenyl]-2-methyl-propionic acid	Intermediate	169280-21-1	
10.	Methyl-2-[4-(4-chlorobutanoyl) phenyl]-2-methylpropanoate	Intermediate	154477-54-0	
11.	Fexofenadine hydrochloride	API	153439-40-8	
12.	2-(4-{4-[4-(Hydroxy-diphenyl-methyl)- piperidin-1-yl]-butyryl}-phenyl)-2- methyl-propionic acid methyl ester	Intermediate	154477-55-1	
13.	2-(4-{1-Hydroxy-4-[4-(hydroxy-diphenyl-methyl)-piperidin-1-yl]-butyl}-phenyl)-2-methyl-propionic acid	Intermediate	138452-21-8	
14.	2, 3,4, 5-Bis-O-(1-MethylEthylidene)-B-D-fructo pyranose	Intermediate	20880-92-6	
15.	Lumefantrine	API	82186-77-4	
16.	2-chloro-1-(2,7-dichloro-9H-fluoren-4-yl)ethan-1-one	Intermediate	131023-37-5	
17.	2-chloro-1-(2,7-dichloro-9H-fluoren-4-yl)ethane-1-ol	Intermediate	1374644-82-2	
18.	2-(dibutylamino)-1-(2,7- dichloro -9H-fluoren-4-yl)ethanol	Intermediate	53221-07-1	
19.	Dapoxetine	API	119356-77-3	
20.	3-chloro-1-phenyl propan-1-ol	Intermediate	18776-12-0	
21.	Hydroxyl Naphthyl Ether	Intermediate	93-20-9	
22.	2-methoxybenzoic acid	Intermediate	579-75-9	
23.	3-chloro-N-(3-hydroxyphenyl)propanamide	Intermediate	50297-40-0	
24.	3-chloro-N-(4-hydroxyphenyl)propanamide	Intermediate	19314-10-4	
25.	7-Hydroxy-3,4-dihydroquinolin-2(1H)-one	Intermediate	22246-18-0	
26.	6-Hydroxy-3,4-dihydroquinolin-2(1H)-one	Intermediate	54197-66-9	
27.	Azithromycin dihydrate	API	117772-70-0	
28.	Bupropion Hydrochloride	API	31677-93-7	

29.	3-Bromo-1-(3-chloro-phenyl) - propan-1-one	Intermediate	500011-86- 9	Bupropion Hydrochloride/treat major depressive disorder and seasonal affective disorder.  API/treat muscle pain and discomfort.  Carisoprodol/ treat muscle pain and discomfort.  API/ treat secondary hyperparathyroidism  Cinacalcet Hydrochloride/treat secondary hyperparathyroidism  API/treat new/worsening chest pain  Clonidine/ treat new/worsening chest pain  Clonidine/ treat new/worsening chest pain  API/prevent and treat a variety of fungal and yeast infections  Fluconazole/ prevent and treat a variety of fungal and yeast infections  API/ treat serious fungal infections includin g: blastomycosis  Ketoconazole/ treat serious fungal infections includin g: blastomycosis  API/relieve allergy symptoms  Levocetirizine Dihydrochloride/relieve allergy symptoms
30.	Bupropion	Intermediate	34841-39-9	
31.	Carisoprodol	API	78-44-4	
32.	5-Methyl-5-propyl-[1,3]dioxan-2- one	Intermediate	7148-50-7	
33.	Isopropyl-carbamic acid 2- hydroxymethyl -2-methyl-pentyl ester	Intermediate	25462-17-3	
34.	Cinacalcet Hydrochloride	API	364782-34- 3	
35.	Methanesulfonic acid 3-(3-trifluoro methyl-phenyl)-propyl ester	Intermediate	21172-43-0	
36.	(1-Naphthalen-1-yl-ethyl)-[3-(3- trifluoromethyl-phenyl)-propyl]- amine	Intermediate	1271930- 12-1	
37.	Clopidogrel Bisulphate	API	120202-66- 6	
38.	2-(thiophen-2-yl)ethanol	Intermediate	5402-55-1	
39.	2-(Thiophen-2-yl)ethyl 4- methylbenzenesulfonate	Intermediate	40412-06-4	
40.	(S)-Methyl 2-(2-chlorophenyl)- 2- ((2-(thiophen-2- yl)ethyl)amino)acetate hydrochloride	Intermediate	141109-19- 5	
41.	(S)-Methyl 2-(2-chlorophenyl)-2- (6,7- dihydrothieno [3,2-c]pyridin- 5(4H)-yl)acetate sulfate	Intermediate	120202-71- 3	
42.	Fluconazole	API	86386-73-4	
43.	(2,4-Difluoro-2-(1h- 1,2,4-Triazole- 1-Yl) Acetophenone)	Intermediate	86404-63-9	
44.	1-[2-(2,4-di fluorophenyl)-2,3- epoxypropyl]-1H-1,2,4-Triazole	Intermediate	86386-76-7	
45.	Ketoconazole	API	65277-42-1	
46.	Cis –Bromo benzoate	Intermediate	61397-56-6	
47.	Cis-Imidazolealcohol	Intermediate	506-43-4	
48.	Cis –Tosylate	Intermediate	154003-23- 3	
49.	1-Acetyl-4-(4-hydroxy phenyl)piperazine	Intermediate	67914-60-7	
50.	Levocetirizine Dihydrochloride	API	130018-77- 8	
51.	1-Methanesulfonyl-4- methylbenzene, ( 2-chloro-ethyl)- chloromethylamine	Intermediate	1671-18-7	

52.	1-[(4-Chloro-phenyl)-phenyl-methyl]-4- (toluene-4-sulfonyl)-piperazine	Intermediate	163837-56-7	
53.	1-[(4-Chloro-phenyl)-phenyl -methyl]-piperazine	Intermediate	38212-33-8	
54.	1-{4-[(4-Chloro-phenyl)-phenyl -methyl]-piperazin-1-yl}-ethanol	Intermediate	109806-71-5	
55.	Memantine HCl	API	41100-52-1	API/treat moderate to severe confusion
56.	N-(3,5 dimethyladamantan-1-yl)urea	Intermediate	19982-07-1	Memantine HCl/ treat moderate to severe confusion
57.	(3,5, dimethyladamantan-1-amine)	Intermediate	41100-52-1	API/treat certain mental/mood conditions
58.	Quetiapine Fumarate	API	111974-69-7	Quetiapine Fumarate/treat certain mental/mood conditions
59.	11-Piperazin-1-yl-dibenzo[b,f][1,4]thiazepine	Intermediate	111974-74-4	
60.	2-[2-(4-Dibenzo[b,f][1,4]thiazepin-11-yl -piperazin-1-yl)-ethoxy]-ethanol	Intermediate	1076199-40-0	
61.	Simvastatin	API	79902-63-9	API/lower cholesterol
62.	2-Methyl-butyric acid 8-(6-butylcarbamoyl-3,5- dihydroxy-hexyl)-3,7-dimethyl-1,2,3,7,8,8a-hexahydro-naphthalen-1-yl ester	Intermediate	863239-60-5	
63.	2-Methyl-butyric acid 8-[6-butylcarbamoyl-3,5-bis-(tert-butyl-dimethyl- silanyloxy)-hexyl]-3,7-dimethyl-1,2,3,7,8,8a-hexahydro-naphthalen- 1-yl ester	Intermediate	239-10-5	Simvastatin/lower cholesterol
64.	2,2-Dimethyl-butyric acid 8-[6-butylcarbamoyl-3,5-bis-(tert-butyl-dimethyl- silanyloxy)-hexyl]-3,7-dimethyl-1,2,3,7,8,8a-hexahydro-naphthalen- 1-yl est	Intermediate	97369-75-0	
65.	Simvastatin Amide	Intermediate	1002347-71-8	
66.	Telmisartan	API	144701-48-4	API/treat high blood pressure (hypertension)
67.	methyl-4-methyl-1,1-biphenyl- 2-carboxylate	Intermediate	49742-56-5	
68.	4-(bromomethyl)biphenyl-2-carboxylic acid methyl ester	Intermediate	114772-38-2	
69.	methyl 4'-((1,7'-dimethyl-2'-propyl-1H,3'H-[2,5'- bibenzo[d]imidazol]-3'-yl)methyl)-[1,1'-biphenyl]-2-carboxylate	Intermediate	1026353-20-7	Telmisartan/treat high blood pressure (hypertension)
70.	4'-((1,7'-dimethyl-2'-propyl-1H,3'H-[2,5'- bibenzo[d]imidazol]-3'-yl)methyl)-[1,1'-biphenyl]-2-carboxylic acid	Intermediate	144702-26-1	
71.	Ziprasidone Hydrochloride	API	138982-67-9	API/ treat schizophrenia

72.	6-Chloro-5-(2-chloro-ethyl)- 1,3-dihydro-2H--indol-2-one	Intermediate	118289-55-7	Ziprasidone Hydrochloride/ treat schizophrenia
73.	3-Piperazin-1-yl-1,2-benzisothiozole hydrochloride	Intermediate	87691-87-0	
74.	Ziprasidone	Intermediate	146939-27-7	API/treat high blood pressure
75.	Carvedilol	API	72956-09-3	
76.	1,3cyclohexandione mono phenyl hydrazone	Intermediate	27385-45-1	Carvedilol/treat high blood pressure
77.	1,2,3,4-tetrahydrocarbazol-4-one	Intermediate	15128-52-6	
78.	4-hydroxy-9-(H) carbazole	Intermediate	52602-39-8	
79.	4-oxyranylmethoxy-9-(H)-carbazole	Intermediate	51997-51-4	
80.	Omeprazole	API	73590-58-6	API/ treat the symptoms of gastroesophageal reflux disease
81.	3,5-Dimethyl-4-nitro-pyridine N-oxide	Intermediate	14248-66-9	Omeprazole/ treat the symptoms of gastroesophageal reflux disease
82.	(4-methoxy-3,5-dimethylpyridin-2-yl)methanol	Intermediate	86604-78-6	
83.	2-(chloromethyl)-4-methoxy-3,5-dimethylpyridine	Intermediate	86604-75-3	
84.	5-Methoxy-2-(4-methoxy-3,5-dimethyl-pyridine-2-ylmethylsulfanyl)-1H-benzoimidazole	Intermediate	73590-85-9	
85.	Lansoprazole	API	103577-45-3	
86.	4-nitro-2,3-dimethyl pyridine-N-oxide	Intermediate	37699-43-7	Lansoprazole /treat certain stomach and esophagus problems
87.	2-Hydroxy methyl-3-methyl pyridine hydrochloride	Intermediate	11817-10-3	
88.	2-chloromethyl-3-methyl pyridine hydrochloride	Intermediate	153259-31-5	
89.	2[4-(2,2,2-Tri fluoro ethoxy)-3-methyl pyridine ]methyl thio-1H-Benzimidazole	Intermediate	127337-60-4	
90.	Etoricoxib	API	202409-33-4	
91.	1-(4-Methanesulfonyl-Phenyl)-ethanone	Intermediate	1020237-77-7	Etoricoxib/ reduce the pain and swelling
92.	(4-Methanesulfonyl-Phenyl)-acetic acid	Intermediate	90536-66-6	
93.	2-(4-Methanesulfonyl-Phenyl)-1-(6-methyl-pyridin-3-yl)-ethanone	Intermediate	221615-75-4	
94.	(2-Chloro-3-dimethylamino-allylidene)-dimethyl-ammonium Salt of Phosphorus Hexafluoride	Intermediate	291756-76-8	
95.	Lurasidone hydrochloride	API	367514-88-3	API/treat certain mental/mood disorders

96.	Methanesulfonic acid 2-methane sulfonyloxymethyl-cyclohexyl methyl ester	Intermediate	75-75-2	Lurasidone hydrochloride /treat certain mental/mood disorders	
97.	Irbesartan	API	138402-11-6		API/treat high blood pressure
98.	2-Butyl-4-spirocyclopentane-2-imidazolin-5-one hydrochloride	Intermediate	151257-01-1		Irbesartan/ treat high blood pressure
99.	4-Bromomethyl-2-cyanobiphenyl	Intermediate	114772-54-2		
100.	4'-(2-Butyl-4-oxo-1,3-diazaspiro[4.4]non-1-en-3-ylmethyl)-biphenyl-2-carbonitrile	Intermediate	138401-24-8		
101.	Monetelucast Sodium	API	151767-02-1		API/control and prevent symptoms caused by asthma
102.	1-(3-[2-(7-Chloro-quinolin-2-yl)-vinyl]-phenyl)-3-[2-(1-hydroxy-1-methyl-ethyl)-phenyl]-propane-1-ol	Intermediate	287930-77-2		Monetelucast Sodium/ control and prevent symptoms caused by asthma
103.	Methane sulfonic acid 1-(3-[2-(7-Chloro-quinolin-2-yl)-vinyl]-phenyl)-3-[2-(1-hydroxy-1-methyl-ethyl)-phenyl]-propyl ester	Intermediate	75-92-3		
104.	1-{1-(3-[2-(7-Chloro-quinolin-2-yl)-vinyl]-phenyl)-3-[2-(1-hydroxy-1-methyl-ethyl)-phenyl]-propylsulfanylmethyl}-cyclopropyl)-acetic acid	Intermediate	200804-28-0		
105.	Montelukast Dicyclohexylamine	Intermediate	577953-88-9		
106.	Folic acid	API	59-30-3		
107.	4-Nitro benzoyl Chloride	Intermediate	122-04-3		Folic acid/treat folic acid deficiency and certain types of anemia
108.	2-(4-Nitro benzoyl amino)pentanedionic	Intermediate	6758-40-3		
109.	2-(4-Aminobenzoyl amino)pentanedionic acid	Intermediate	4230-33-5		
110.	1,1,3-Trichloro propane-2-one	Intermediate	96-18-4		API/treat high blood pressure (hypertension)
111.	Bisoprolol Fumarate	API	66722-44-9	Bisoprolol Fumarate /treat high blood pressure (hypertension)	
112.	(4-((2-isopropoxyethoxy)methyl)phenol)	Intermediate	177034-57-0		
113.	(2-((4-((2-isopropoxyethoxy)methyl)phenoxy)methyl)oxirane)	Intermediate	621-87-4		
114.	(1-(4-((2-isopropoxyethoxy)methyl)phenoxy)-3-(isopropylamino)propan-2-ol)	Intermediate	1215342-36-1		
115.	Erythromycin Stearate	API	643-22-1	API/to treat a wide variety of bacterial infections	

116.	Cephalexin	API	15686-71-2	API/ treat certain infections caused by bacteria
117.	Sulbactam	API	69388-84-7	API/treat certain infections caused by bacteria
118.	Prednisolone	API	53-03-2	API/ treat conditions such as arthritis
119.	Metformine HCl	API	1115-70-4	API/control high blood sugar
120.	Gabapentin	API	60142-96-3	API/prevent and control seizures.
121.	(1-aminomethyl-cyclohexyl)-acetic acid)	Intermediate	60175-04-4	Gabapentin/prevent and control seizures.
122.	Vitamin B6	API	58-56-0	API/ prevent or treat a certain nerve disorder
123.	Clavulanate potassium	API	61177-45-5	API/treat many different infections
124.	Carithromycin	API	81103-11-9	API/treat a wide variety of bacterial infections.
125.	Ciprofloxacin Lactate	API	857213-31-1	API/ treat serious infections
126.	Artesunate	API	88495-63-0	API/treat malaria
127.	Ofloxacin	API	82419-36-1	API/ treat a variety of bacterial infections
128.	Levofloxacin	API	100986-85-4	API/treat a variety of bacterial infections
129.	Tinidazole	API	19387-91-8	API/treat trichomoniasis
130.	Ornidazole	API	16773-42-5	API/treat people who have certain types of vaginal
131.	Meropenem	API	119478-56-7	API/ treat certain types of bacterial infections.
132.	3-[5-Dimethylcarbamoyl-1-(4-nitrobenzyloxycarbonyl)-pyrrolidin-3-ylsulfanyl]-6-(1-hydroxyethyl)-4-methyl-7-oxo-1-azabicyclo[3.2.0] hept-2-ene-2-carboxylic acid 4-nitro-benzyl ester	Intermediate	90776-58-2	Meropenem/ treat certain types of bacterial infections.
133.	Paracetamol	API	103-90-2	API/treat aches and pain
134.	Ritonavir	API	155213-67-5	API/ treat human immunodeficiency virus (HIV) infection
135.	(1-Benzyl-4-tert-butoxycarbonylamino-2-hydroxy-5-phenylpentyl)-carbamic acid thiazol-5-ylmethyl ester	Intermediate	144163-97-3	Ritonavir/ treat human immunodeficiency virus (HIV) infection
136.	Thioisobutyramide	Intermediate	563-83-7	
137.	1-(2-Isopropylthiazol-4-yl)-N-methyl methanamine	Intermediate	1185167-55-8	

138.	(S)-2-(3-((2-Isopropylthiazol-4-yl)methyl)-3-methylureido)-3-methylbutanoic acid	Intermediate	154212-61-0	
139.	Diclofenac Sodium	API	15307-79-6	API/to relieve pain, tenderness, swelling, and stiffness caused by osteoarthritis
140.	Aspirin	API	50-78-2	API/ reduce fever and relieve mild to moderate pain from conditions such as muscle aches
141.	Carbidopa	API	28860-95-9	API/ treat the symptoms of Parkinson's disease or Parkinson-like symptoms
142.	Methyl Dopa Methyl Ester	Intermediate	18181-08-3	Carbidopa/ treat the symptoms of Parkinson's disease or Parkinson
143.	3 3-pentamethylene oxaziridine	Intermediate	1130-32-1	
144.	Carbidopa Methyl Ester	Intermediate	91431-01-5	API/treat trigeminal neuralgia
145.	Carbamazepine	API	298-46-4	API/treat high blood pressure
146.	Olmesartan	API	144689-63-4	API/treatment of herpes simplex virus infections of the skin
147.	Acyclovir	API	59277-89-3	Acyclovir / treatment of herpes simplex virus infections of the skin
148.	Diacetyl Guanine	Intermediate	3056-33-5	API/ treat human immunodeficiency virus (HIV) infection
149.	Diacetyl acyclovir	Intermediate	75128-73-3	
150.	Lopinavir	API	192725-17-0	API/ treat acne
151.	Clindamycin Phosphate	API	24729-96-2	API/ treat conditions such as arthritis
152.	Dexamethasone Sodium	API	2392-39-4	API/prevent and treat tuberculosis and other infections
153.	Rifampicin	API	13292-46-1	Rifampicin/ prevent and treat tuberculosis and other infections
154.	N-Methylene-t-butylamine	Intermediate	109-73-9	API/treat high blood pressure
155.	Valsartan	API	137862-53-4	Valsartan/ treat high blood pressure
156.	(Methyl N-valeryl-N-[(2-cyanobiphenyl-4-yl)methyl]-l-valinate)	Intermediate	482577-59-3	API/prevent and treat a variety of fungal and yeast infections.
157.	Fluconazole	API	86386-73-4	Fluconazole/ prevent and treat a variety of
158.	(2,4-Difluoro-2-(1h- 1,2,4-Triazole-1-Yl) Acetophenone)	Intermediate	86404-63-9	



159.	1-[2-(2,4-di fluorophenyl)-2,3-epoxypropyl]-1H-1,2,4-Triazole	Intermediate	86386-76	fungal and yeast infections. API/ treat certain mental/mood disorders Aripiprazole/ treat certain mental/mood disorders API/ treat high blood pressure. Nebivolol Hydrochloride/ treat high blood pressure. API/treat human immunodeficiency virus (HIV) infection. Lopinavir/treat human immunodeficiency virus (HIV) infection. API/treat human immunodeficiency virus Darunavir/treat human immunodeficiency virus API/ treat seizures (epilepsy). Levetiracetam/ treat seizures (epilepsy). API/ treat neuropathic pain and fibromyalgia. Pregabalin/treat neuropathic pain and fibromyalgia.
160.	Aripiprazole	API	129722-12-9	
161.	7-Hydroxy-3,4-dihydro-1Hquinolin-2-one	Intermediate	205448-65-3	
162.	7-(4-Chloro-butoxy)-3,4-dihydro-1H-quinolin-2-one	Intermediate	129722-34-5	
163.	1-(2,3-Dichloro-phenyl)-piperazine Hydrochloride	Intermediate	119532-26-2	
164.	7-{4-[4-(2,3-Dichloro-phenyl)-piperazin-1-yl]-butoxy}-3,4-dihydro-1H-quinolin-2-one	Intermediate	129722-25-4	
165.	Nebivolol Hydrochloride	API	152520-56-4	
166.	6-Fluoro-2-oxiranyl-chroman	Intermediate	99199-90-3	
167.	2-Benzylamino-1-(6-fluoro-chroman -2-yl)-ethanol	Intermediate	13781-67-4	
168.	2-{Benzyl-[2-(6-fluoro-chroman-2-yl)-2-hydroxy-ethyl]-amino}-1-(6-fluoro-chroman-2-yl)-ethanol	Intermediate	929-706-85-4	
169.	Lopinavir	API	192725-17-0	
170.	1-Imino-4-(N,N-dibenzylamino) 5-phenyl-3-oxo-pent-1-ene	Intermediate	156732-12-6	
171.	(R,Z)-5-amino-2-(dibenzyl amino) -1,6-diphenyl hex-4-en-3-one	Intermediate	156732-13-7	
172.	(2S, 3S, 5S)-2-Amino-3-hydroxy-5-(1-tetra hydro pyrimid-2-onyl)-3-methyl butanoyl) amino-1,6-diphenyl	Intermediate	116-63-2	
173.	Darunavir	API	206361-99-1	
174.	N-[2R,3S)-3-Tert butoxycrbonyl amino- 2-hydroxy-4-phenyl butyl]-isobutylamine	Intermediate	302964-08-5	
175.	N-[(2R,3S)-3-Tert butoxycarbonylamino-2- hydroxy-4-phenyl butyl]-isobutylamine	Intermediate	160232-08-6	
176.	Levetiracetam	API	102767-28-2	
177.	N-(1-Carbamyl propyl)-4-chloro butyramide	Intermediate	102767-31-7	
178.	Pregabalin	API	148553-50-8	
179.	2-(3-Methyl-butylidene)-melonic acid diethyl ester	Intermediate	86369-44-0	
180.	3-aminomethyl 5-methyl hexanoic acid	Intermediate	148553-50-8	
181.	s(+)-Pregabalin mandalate salt	Intermediate	4118-51-8	

182.	Atorvastatin calcium trihydrate	API	134523-03-8	API/ to reduce such risk even if your cholesterol levels are normal.
183.	[6-(2-Amino-ethyl)-2,2-dimethyl-[1,3]dioxan-4-yl]-acetic acid tert-butyl ester	Intermediate	125-86-0	
184.	(6-{2-[2-(4-Fluoro-phenyl)-5-isopropyl-3- phenyl-4-phenylcarbamoyl-pyrrol-1-yl]-ethyl}-2,2-dimethyl-[1,3]dioxan-4-yl)- acetic acid tert-butyl ester	Intermediate	265989-42-2	
185.	7-[2-(4-Fluoro-phenyl)-5-isopropyl-3-phenyl- 4-phenylcarbamoyl-pyrrol-1-yl]-3,5- dihydroxy-heptanoic acid tert-butyl ester	Intermediate	125971-95-1	
186.	Rosuvastatin Calcium	API	147098-20-2	API/help lower "bad" cholesterol
187.	N-[4-(4-Fluoro-phenyl)-5-formyl-6-isopropyl-pyrimidin-2-yl]-N-methyl -methanesulfonamide	Intermediate	29096-933	Rosuvastatin Calcium/ help lower "bad" cholesterol
188.	3-(tert-Butyl-dimethyl-silanyloxy)-7-[4-(4-fluoro-phenyl)-6- isopropyl-2-(methanesulfonyl-methyl-amino) -pyrimidin-5-yl]-5-oxo-hept-6-enoic acid methyl ester	Intermediate	355806-00-7	
189.	7-[4-(4-Fluoro-phenyl)-6-isopropyl-2-(methanesulfonyl -methyl-amino)-pyrimidin-5-yl]-3-hydroxy -5-oxo-hept-6-enoic acid methyl ester	Intermediate	147118-39-6	
190.	7-[4-(4-Fluoro-phenyl)-6-isopropyl-2-(methanesulfonylmethyl- amino)-pyrimidin-5-yl]-3,5-dihydroxyhept-6-enoic acid methyl ester	Intermediate	147118-40-9	
191.	Hydroxychloroquine	API	118-42-3	API/treat rheumatoid arthritis and systemic lupus erythematosus
192.	4, 7-Dichloroquinoline	Intermediate	86-98-6	Hydroxychloroquine/ treat rheumatoid arthritis and systemic lupus erythematosus
193.	Torseamide	API	56211-40-6	API /Heart failure, liver disease, and kidney disease
194.	(2-aminobenzenesulfonic acid)	Intermediate	88-21-1	Torseamide /Heart failure, liver disease, and kidney disease
195.	(4-chloropyridine-3-sulfonamide)	Intermediate	18368-64-4	
196.	(4-(m-tolylamino)pyridine-3-sulfonamide)	Intermediate	72811-73-5	
197.	Amisulpride	API	53583-79-2	API /Antipsychotic
198.	Irbesartan	API	138402-11-6	API /Antihypertensive
199.	(4'-(2-Butyl-4-oxo-1,3-diazaspiro[4,4]non-1-ene-3-yl methyl)biphenyl-2-carbonitrile)	Intermediate	138401-24-8	Irbesartan /Blood pressure,heart attacks, and kidney problems

200.	(2-n-butyl-4-spiro cyclopenetrane-1-((2'-triphenyl methyl tetrazol-5-yl) biphenyl-4-yl methyl)-2-imidazole)	Intermediate	124751-00-4	
201.	Flurbiprofen	API	5104-49-4	API /Painkiller
202.	Cloxacillin Sodium	API	7081-44-9	API /Antibiotic
203.	Terbinafine Hydrochloride	API	78628-80-5	API /Antifungal
204.	Roxithromycin	API	80214-83-1	API /Antibiotic
205.	Lisinopril	API	83915-83-7	API /Antihypertensive
206.	Hydrochlorothiazide	API	58-93-5	API/Antihypertensive
207.	Atenolol	API	29122-68-7	API /Antihypertensive
208.	Domperidone	API	57808-66-9	API /Antiemetic
209.	Dabigatran etexilate mesylate	API	211915-06-9	API /prevent blood clots
210.	(3-(3-Amino-4-methylamino-benzoyl)-pyridine-2-yl-amino)-propionic acid ethyl ester) & ((4-Cyano-phenylamino)acetic acid)	Intermediate	42288-26-6	
211.	(3-({2-[(4-cyano-phenylamino)-methyl]-1-methyl-1H-benzoimidazole-5-carbonyl}-pyridine-2-yl-amino)-propionic acid ethyl ester methane sulfoate)	Intermediate	211915-84-3	
212.	(3-({2-[(4-carbamimidoyl-phenylamino)-methyl]-1-methyl-1H-benzoimidazole-5-carbonyl}-pyridine-2-yl-amino)-propionic acid ethyl ester hydrogen chloride)	Intermediate	7647-01-0	Dabigatran /prevent blood clots
213.	(3-[(2-[(4-(Hexyloxycarbonylamino-imino-methyl)-phenylamino)-methyl]-1-methyl-1H-benzoimidazole-5-carbonyl)-pyridine-2-yl-amino]-propionic acid ethyl ester)	Intermediate	211915-06-9	
214.	Strontium Renelate	API	135459-90-4	API /Osteoporosis
215.	(Diethyl 3-oxopentanedioate)	Intermediate	105-50-0	
216.	(Ethyl 5-amino-4-cyano-3-(2-ethoxy-2-oxoethyl)thiophene-2-carboxylate)	Intermediate	58168-20-0	Strontium Renelate /postmenopausal women with osteoporosis
217.	(diethyl 2,2'-((3-cyano-4-(2-ethoxy-2-oxoethyl)-5-(ethoxycarbonyl)thiophen-2-yl)azanediyl)diacetate)	Intermediate	58194-26-6	
218.	Phenylephrine HCl	API	61-76-7	API /stuffy nose, sinus, and ear symptoms
219.	(3-acetylphenyl acetate)	Intermediate	2454-35-5	
220.	(3-(2-bromoacetyl)phenyl acetate or 2-(benzyl(methyl)amino-1-(3-hydroxyphenyl)ethane-1-one)	Intermediate	38396-89-3 & 71786-67-9	Phenylephrine HCl /stuffy nose, sinus, and ear symptoms
221.	(3-(1-hydroxy-2-(methylamino)ethyl)phenol)	Intermediate	532-38-7	

222.	Cetirizine Dihydrochloride	API	83881-52-1	API /Relieve allergy symptoms such as watery eyes, runny nose, itching eyes/nose, sneezing, hives, and itching
223.	4-chloro benzhydryl piperazine ethanol	Intermediate	109806-71-5	Cetirizine Dihydrochloride /Relieve allergy symptoms such as watery eyes, runny nose, itching eyes/nose, sneezing, hives, and itching
224.	Itopride Hydrochloride	API	122892-31-3	API /Gastrointestinal symptoms of functional, nonulcer dyspepsia (chronic gastritis)
225.	Rabeprazole Sodium	API	117976-90-6	API /Gastroesophageal reflux disease (GERD)
226.	(2-[4-(3-methoxy-propoxy)-3-methyl-pyridin-2-yimethanesulfinyl]-1H-benzimidazole)	Intermediate	117977-21-6	Rabeprazole Sodium/gastroesophageal reflux disease (GERD), duodenal ulcers
227.	Donepezil Hydrochloride	API	120011-70-3	API /Antidepressant
228.	Celecoxib	API	169590-42-5	API /pain or inflammation
229.	(4,4,4-trifluoro-1-(4-methyl phenyl) butano-1,3-diono)	Intermediate	720-94-5	Celecoxib/pain or inflammation
230.	Pantoprazole Sodium	API	138786-67-1	API /stomach and esophagus problems
231.	(5-Difluoromethoxy-2-(3,4-dimethoxy-pyridin-2-yimethylsulfanyl)-1H-benzoimidazole)	Intermediate	102625-64-9	Pantoprazole Sodium /stomach and esophagus problems
232.	Artemether	API	71963-77-4	API /Antimalarial
233.	Ampicillin Trihydrate	API	7177-48-2	API /Antibiotic
234.	Levosulpiride	API	23672-07-3	API /symptoms of schizophrenia, anxiety disorders, and dysthymia
235.	(2-methoxybenzoic acid)	Intermediate	579-75-9	Levosulpiride /symptoms of schizophrenia, anxiety disorders, and dysthymia
236.	(2-methoxy-5-sulfamoylbenzoic acid)	Intermediate	22117-85-7	
237.	(Methyl 1,2-methoxy-5-sulfamoylbenzolate)	Intermediate	33045-52-2	
238.	S-1-Ethyl-2-aminomethyl pyrrolidine	Intermediate	22795-99-9	
239.	Moxifloxacin HCl	API	186826-86-8	API /Antibiotic
240.	(5,8-dihydronaphthalen-1-yl acetate)	Intermediate	51927-56-1	Moxifloxacin/ Antibiotic
241.	Clotrimazole	API	23593-75-1	API /Antifungal

242.	Famotidine	API	76824-35-6	API/ used to treat ulcers of the stomach and intestines
243.	Amlodipine maleate	API	1185246-15-4	API/to prevent certain types of chest pain (angina).
244.	Bisacodyl	API	603-50-9	API/stimulant laxatives
245.	Doxofylline	API	69975-86-6	API/treatment of asthma
246.	Diprophyllin	Intermediate	479-18-5	Doxofylline/ treatment of asthma
247.	Theophylline-7-acetal	Intermediate	5614-53-9	
248.	Esomeprazole Magnesium	API	161973-10-0	API/ to treat certain stomach and esophagus problems
249.	Ivabradine Hydrochloride	API	148849-67-6	API/ to treat heart failure
250.	Etoricoxib	API	202409-33-4	API/Pain killers
251.	Omeprazole Magnesium	API	95382-33-5	API/ to treat certain stomach and esophagus problems
252.	Amlodipine Besylate	API	88150-42-9	API/ treatment of chronic stable angina
253.	Prasugrel	API	150322-43-3	API/Antiplatelet
254.	5-[ $\alpha$ -cyclopropyl carbonyl-2-fluoro benzyle)-2-nitro-4,5,6,7-tetrahydrothieno[3,2-c]pyridine HCl	Intermediate	--	Prasugrel/ Antiplatelet
255.	2-amino-5-( $\alpha$ -cyclopropyl carbonyl-2-fluoro benzyl)-4,5,6,7-tetrahydrothieno[3,2-c]pyridine HCl	Intermediate	--	
256.	Nicorandil	API	65141-46-0	API/ treatment of chronic stable angina pectoris
257.	N-(2-Hydroxyethyl)pyridine-3-carboxamide	Intermediate	6265-73-2	Nicorandil/ treatment of chronic stable angina pectoris
258.	Cilansetron	API	120635-74-7	API/ treatment of diarrhoea-predominant irritable bowel syndrome (IBS)
259.	Sitagliptine	API	486460-32-6	API/ to control high blood sugar
260.	Tiotropium Bromide	API	186691-13-4	API/ to control and prevent symptoms caused by ongoing lung disease
261.	Silodosin	API	160970-54-7	API/ to treat signs and symptoms of an enlarged prostate gland
262.	Solifenacin	API	242478-38-2	API/to treat an overactive bladder.

263.	Hydroxy Chloroquine Sulfate	API	747-36-4	API/ to prevent and treat malaria & treatment of rheumatoid arthritis, lupus, and porphyria cutaneatarda.	
264.	Febuxosate	API	144060-53-7		API/ to prevent gout attacks by reducing the levels of uric acid in your blood
265.	Lornoxicam	API	70374-39-9		API/nonsteroidal anti-inflammatory drug
266.	5-chloro-3-(chlorosulfonyl) thiophene-2- methylcarboxylate	Intermediate	70374-37-7		Lornoxicam/ nonsteroidal anti-inflammatory drug
267.	5 - Chloro-3-[[[(methoxy carbonyl) amino] sulfonyl] -2- thiophene carboxylic acid methyl ester	Intermediate	70374-38-8		
268.	6-chloro-4-hydroxy-2H-thieno[2,3-e]-1,2-thiazine-3-carboxylic acidmethylester1,1,-dioxide	Intermediate	70415-50-8		
269.	6-chloro-4-hydroxy-2-methyl-2H-thieno[2,3-e]-1,2-thiazine-3-carboxylic acidmethylester1,1,-dioxide	Intermediate	70415-50-8		
*R&D				0.1MT/Month	
TOTAL				100 MT/Month	

#### Brief Note of Product Profile:

- No of Manufacturing Plants: 1 Nos.**
- Brief Note regarding number of Products to be manufactured considering plant capacity:**
  - At a time 3-4 Nos. of products will be manufactured.
  - Considering plant capacity:3.5 Tone/Day

#### ENDUSE OF PRODUCTS

Sr. No	NAME OF PRODUCT	CAS No.	In case of Intermediate stage of API			CAS No. (API)	Said API is used for/End Use of said API
			Stage i.e. n-1, n-2,	Type/ Category of Product (API/	Name of API in which Intermediate Used/		
1.	2,2',4'-Trichloro Acetophenone	4252-78-2	n-1	Intermediate	Miconazole Nitrate	22916-47-8	Miconazole Nitrate/treat vaginal yeast infections
2.	Mefenamic Acid	61-68-7	-	API	-	-	API/relieve mild to moderate pain
3.	Amoxicillin Trihydrate	61336-70-7	-	API	-	-	API/treat many different types of infection caused by bacteria

4.	3-(dimethylamino)-1-(3-methoxyphenyl)-2-methylpropan-1-one	19714 5-37-2	n-1	Intermediate	Tapentadol	17559 1-09-0	Tapentadol/ treat moderate to severe acute pain
5.	1-(hydroxycyclohexyl)(4-methoxyphenyl)-acetonitrile	93413 -76-4	n-1	Intermediate	Venlafaxine	93413 -69-5	Venlafaxine/to treat depression
6.	2-dimethylaminomethyl cyclohexanone HCl	42036 -65-7	n-1	Intermediate	Tramadol	27203 -92-5	Tramadol/to relieve moderate to moderately severe pain.
7.	Acetic acid 2-[4-(4-chlorobutyryl)-phenyl]-2-methylpropyl ester	16903 2-11-5	n-4	Intermediate	Fexofenadine	83799 -24-0	Fexofenadine/relieve the symptoms
8.	4-Chloro-1-[4-(2-hydroxy-1,1-dimethyl-ethyl-phenyl)]-butan-1-one	16928 0-25-5	n-3	Intermediate	Fexofenadine	83799 -24-0	Fexofenadine/relieve the symptoms
9.	2-[4-(4-Chloro-butyryl)-phenyl]-2-methylpropionic acid	16928 0-21-1	n-2	Intermediate	Fexofenadine	83799 -24-0	Fexofenadine/relieve the symptoms
10.	Methyl-2-[4-(4-chlorobutanoyl) phenyl]-2-methylpropanoate	15447 7-54-0	n-1	Intermediate	Fexofenadine	83799 -24-0	Fexofenadine/relieve the symptoms
11.	Fexofenadine hydrochloride	15343 9-40-8	-	API	-	-	API/to relieve allergy symptoms
12.	2-(4-{4-[4-(Hydroxydiphenyl-methyl)-piperidin-1-yl]-butyryl}-phenyl)-2-methylpropionic acid methyl ester	15447 7-55-1	n-2	Intermediate	Fexofenadine hydrochloride	15343 9-40-8	Fexofenadine hydrochloride/ to relieve allergy symptoms
13.	2-(4-{1-Hydroxy-4-[4-(hydroxy-diphenyl-methyl)-piperidin-1-yl]-butyl}-phenyl)-2-methylpropionic acid	13845 2-21-8	n-1	Intermediate	Fexofenadine hydrochloride	15343 9-40-8	Fexofenadine hydrochloride/ to relieve allergy symptoms
14.	2, 3,4, 5-Bis-O-(1-MethylEthylidene)-B-D-fructo pyranose	20880 -92-6	n-1	Intermediate	Topiramate	97240 -79-4	Topiramate/treat epilepsy
15.	Lumefantrine	82186 -77-4	-	API	-	-	API/treat non-severe malaria.
16.	2-chloro-1-(2,7-dichloro-9H-fluoren-4-yl)ethan-1-one	13102 3-37-5	n-3	Intermediate	Lumefantrine	82186 -77-4	Lumefantrine/treat non-severe malaria.
17.	2-chloro-1-(2,7-dichloro-9H-fluoren-4-yl)ethane-1-ol	13746 44-82-2	n-2	Intermediate	Lumefantrine	82186 -77-4	Lumefantrine/treat non-severe malaria
18.	2-(dibutylamino)-1-(2,7-dichloro-9H-fluoren-4-yl)ethanol	53221 -07-1	n-1	Intermediate	Lumefantrine	82186 -77-4	Lumefantrine/treat non-severe malaria
19.	3-chloro-1-phenyl propan-1-ol	18776 -12-0	n-2	Intermediate	Dapoxetine	12993 8-20-1	Dapoxetine/treatment of premature ejaculation
20.	Hydroxyl Naphthyl Ether	93-20-9	n-1	Intermediate	Dapoxetine	12993 8-20-1	Dapoxetine/treatment of premature ejaculation

21.	Dapoxetine	11935 6-77-3	-	API	-	-	API/treatment of premature ejaculation
22.	2-methoxybenzoic acid	579- 75-9	n-1	Intermediate	Lamotrigine	84057 -84-1	Lamotrigine/prevent and control seizures.
23.	3-chloro-N-(3-hydroxyphenyl)propanamide	50297 -40-0	n-2	Intermediate	Acetaminophen	103- 90-2	Acetaminophen/treat mild to moderate pain
24.	3-chloro-N-(4-hydroxyphenyl)propanamide	19314 -10-4	n-1	Intermediate	Acetaminophen	103- 90-2	Acetaminophen/treat mild to moderate pain
25.	7-Hydroxy-3,4-dihydroquinolin-2(1H)-one	22246 -18-0	n-2	Intermediate	Aripiprazole	12972 2-12-9	Aripiprazole/ treat certain mental/mood disorders
26.	6-Hydroxy-3,4-dihydroquinolin-2(1H)-one	54197 -66-9	n-1	Intermediate	Cilostazol	73963 -72-1	Cilostazol/improve the symptoms of a certain blood flow problem in the legs
27.	Azithromycin dihydrate	11777 2-70-0	-	API	-	-	API/treat a wide variety of bacterial infections
28.	Bupropion Hydrochloride	31677 -93-7	-	API	-	-	API/treat major depressive disorder and seasonal affective disorder.
29.	3-Bromo-1-(3-chlorophenyl) -propan-1-one	50001 1-86-9	n-2	Intermediate	Bupropion Hydrochloride	31677 -93-7	Bupropion Hydrochloride/treat major depressive disorder and seasonal affective disorder.
30.	Bupropion	34841 -39-9	n-1	Intermediate	Bupropion Hydrochloride	31677 -93-7	Bupropion Hydrochloride/treat major depressive disorder and seasonal affective disorder.
31.	Carisoprodol	78-44- 4	-	API	-	-	API/treat muscle pain and discomfort.
32.	5-Methyl-5-propyl-[1,3]dioxan-2-one	7148- 50-7	n-2	Intermediate	Carisoprodol	78-44- 4	Carisoprodol/ treat muscle pain and discomfort.
33.	Isopropyl-carbamic acid 2-hydroxymethyl -2-methyl-pentyl ester	25462 -17-3	n-1	Intermediate	Carisoprodol	78-44- 4	Carisoprodol/ treat muscle pain and discomfort.
34.	Cinacalcet Hydrochloride	36478 2-34-3	-	API	-	-	API
35.	Methanesulfonic acid 3-(3-trifluoromethylphenyl)-propyl ester	21172 -43-0	n-2	Intermediate	Cinacalcet Hydrochloride	36478 2-34-3	Cinacalcet Hydrochloride/treat secondary hyperparathyroidism
36.	(1-Naphthalen-1-yl-ethyl)-[3-(3-trifluoromethylphenyl)-propyl]-amine	12719 30-12- 1	n-1	Intermediate	Cinacalcet Hydrochloride	36478 2-34-3	Cinacalcet Hydrochloride/treat secondary hyperparathyroidism
37.	Clopidogrel Bisulphate	12020 2-66-6	-	API	-	-	API/treat new/worsening chest pain
38.	2-(thiophen-2-yl)ethanol	5402- 55-1	n-4	Intermediate	Clopidogrel Bisulphate	12020 2-66-6	Clopidogrel Bisulphate/ treat new/worsening chest pain



39.	2-(Thiophen-2-yl)ethyl 4-methylbenzenesulfonate	40412-06-4	n-3	Intermediate	Clopidogrel Bisulphate	12020-2-66-6	Clopidogrel Bisulphate/ treat new/worsening chest pain
40.	(S)-Methyl 2-(2-chlorophenyl)-2-((2-(thiophen-2-yl)ethyl)amino)acetate hydrochloride	141109-19-5	n-2	Intermediate	Clopidogrel Bisulphate	12020-2-66-6	Clopidogrel Bisulphate/ treat new/worsening chest pain
41.	(S)-Methyl 2-(2-chlorophenyl)-2-(6,7-dihydrothieno [3,2-c]pyridin-5(4H)-yl)acetate sulfate	12020-2-71-3	n-1	Intermediate	Clopidogrel Bisulphate	12020-2-66-6	Clopidogrel Bisulphate/ treat new/worsening chest pain
42.	Fluconazole	86386-73-4	-	API	-	-	API/prevent and treat a variety of fungal and yeast infections
43.	(2,4-Difluoro-2-(1H-1,2,4-Triazole-1-yl) Acetophenone)	86404-63-9	n-2	Intermediate	Fluconazole	86386-73-4	Fluconazole/ prevent and treat a variety of fungal and yeast infections
44.	1-[2-(2,4-difluorophenyl)-2,3-epoxypropyl]-1H-1,2,4-Triazole	86386-76-7	n-1	Intermediate	Fluconazole	86386-73-4	Fluconazole/ prevent and treat a variety of fungal and yeast infections
45.	Ketoconazole	65277-42-1	-	API	-	-	API/ treat serious fungal infections including: blastomycosis
46.	Cis -Bromo benzoate	61397-56-6	n-4	Intermediate	Ketoconazole	65277-42-1	Ketoconazole/ treat serious fungal infections including: blastomycosis
47.	Cis-Imidazolealcohol	506-43-4	n-3	Intermediate	Ketoconazole	65277-42-1	Ketoconazole/ treat serious fungal infections including: blastomycosis
48.	Cis -Tosylate	15400-3-23-3	n-2	Intermediate	Ketoconazole	65277-42-1	Ketoconazole/ treat serious fungal infections including: blastomycosis
49.	1-Acetyl-4-(4-hydroxyphenyl)piperazine	67914-60-7	n-1	Intermediate	Ketoconazole	65277-42-1	Ketoconazole/ treat serious fungal infections including: blastomycosis
50.	Levocetirizine Dihydrochloride	13001-8-77-8	-	API	-	-	API/relieve allergy symptoms
51.	1-Methanesulfonyl-4-methylbenzene, (2-chloroethyl)- chloromethylamine	1671-18-7	n-4	Intermediate	Levocetirizine Dihydrochloride	13001-8-77-8	Levocetirizine Dihydrochloride/relieve allergy symptoms
52.	1-[(4-Chloro-phenyl)-phenyl-methyl]-4-(toluene-4-sulfonyl)-piperazine	16383-7-56-7	n-3	Intermediate	Levocetirizine Dihydrochloride	13001-8-77-8	Levocetirizine Dihydrochloride/relieve allergy symptoms
53.	1-[(4-Chloro-phenyl)-phenyl -methyl]-piperazine	38212-33-8	n-2	Intermediate	Levocetirizine Dihydrochloride	13001-8-77-8	Levocetirizine Dihydrochloride/relieve allergy symptoms

54.	1-{4-[(4-Chloro-phenyl)-phenyl -methyl]-piperazin-1-yl}-ethanol	10980 6-71-5	n-1	Intermediate	Levocetirizine Dihydrochloride	13001 8-77-8	Levocetirizine Dihydrochloride/relieve all ergy symptoms
55.	Memantine HCl	41100 -52-1	-	API	-	-	API/treat moderate to severe confusion
56.	N-(3,5 dimethyladamantan-1- yl)urea	19982 -07-1	n-2	Intermediate	Memantine HCl	41100 -52-1	Memantine HCl/ treat moderate to severe confusion
57.	(3,5, dimethyladamantan- 1-amine)	41100 -52-1	n-1	Intermediate	Memantine HCl	41100 -52-1	Memantine HCl/ treat moderate to severe confusion
58.	Quetiapine Fumarate	11197 4-69-7	-	API	-	-	API/treat certain mental/mood conditions
59.	11-Piperazin-1-yl- dibenzo[b,f] [1,4]thiazepine	11197 4-74- 4	n-2	Intermediate	Quetiapine Fumarate	11197 4-69-7	Quetiapine Fumarate/treat certain mental/mood conditions
60.	2-[2-(4- Dibenzo[b,f][1,4]thiazepin- 11-yl -piperazin-1-yl)- ethoxy]-ethanol	10761 99-40- 0	n-1	Intermediate	Quetiapine Fumarate	11197 4-69-7	Quetiapine Fumarate/treat certain mental/mood conditions
61.	Simvastatin	79902 -63-9	-	API	-	-	API/lower cholesterol
62.	2-Methyl-butyric acid 8-(6- butylcarbonyl-3,5- dihydroxy-hexyl)-3,7- dimethyl- 1,2,3,7,8,8a-hexahydro- naphthalen-1-yl ester	86323 9-60-5	n-4	Intermediate	Simvastatin	79902 -63-9	Simvastatin/lower cholesterol
63.	2-Methyl-butyric acid 8-[6- butylcarbonyl-3,5-bis- (tert-butyl-dimethyl- silyloxy)-hexyl]-3,7- dimethyl-1,2,3,7,8,8a- hexahydronaphthalen- 1- yl ester	239- 510-5	n-3	Intermediate	Simvastatin	79902 -63-9	Simvastatin/lower cholesterol
64.	2,2-Dimethyl-butyric acid 8-[6-butylcarbonyl-3,5- bis-(tert-butyl-dimethyl- silyloxy)-hexyl]-3,7- dimethyl-1,2,3,7,8,8a- hexahydronaphthalen- 1- yl est	97369 -75-0	n-2	Intermediate	Simvastatin	79902 -63-9	Simvastatin/lower cholesterol
65.	Simvastatin Amide	10023 47-71- 8	n-1	Intermediate	Simvastatin	79902 -63-9	Simvastatin/lower cholesterol
66.	Telmisartan	14470 1-48-4	-	API	-	-	API/treat high blood pressure (hypertension)
67.	methyl-4-methyl-1,1- biphenyl- 2-carboxylate	49742 -56-5	n-4	Intermediate	Telmisartan	14470 1-48-4	Telmisartan/treat high blood pressure (hypertension)

68.	4-(bromomethyl)biphenyl-2- carboxylic acid methyl ester	11477 2-38-2	n-3	Intermediate	Telmisartan	14470 1-48-4	Telmisartan/treat high blood pressure (hypertension)
69.	methyl 4'-((1,7'-dimethyl-2'-propyl-1H,3'H-[2,5'-bibenzo[d]imidazol]-3'-yl)methyl)-[1,1'-biphenyl]-2- carboxylate	10263 53-20-7	n-2	Intermediate	Telmisartan	14470 1-48-4	Telmisartan/treat high blood pressure (hypertension)
70.	4'-((1,7'-dimethyl-2'-propyl-1H,3'H-[2,5'-bibenzo[d]imidazol]-3'-yl)methyl)-[1,1'-biphenyl]-2- carboxylic acid	14470 2-26-1	n-1	Intermediate	Telmisartan	14470 1-48-4	Telmisartan/treat high blood pressure (hypertension)
71.	Ziprasidone Hydrochloride	13898 2-67-9	-	API	-	-	API/ treat schizophrenia
72.	6-Chloro-5-(2-chloroethyl)- 1,3-dihydro-2H--indol-2-one	11828 9-55-7	n-3	Intermediate	Ziprasidone Hydrochloride	13898 2-67-9	Ziprasidone Hydrochloride/ treat schizophrenia
73.	3-Piperazin-1-yl-1,2-benzisothiazole hydrochloride	87691 -87-0	n-2	Intermediate	Ziprasidone Hydrochloride	13898 2-67-9	Ziprasidone Hydrochloride/ treat schizophrenia
74.	Ziprasidone	14693 9-27-7	n-1	Intermediate	Ziprasidone Hydrochloride	13898 2-67-9	Ziprasidone Hydrochloride/ treat schizophrenia
75.	Carvedilol	72956 -09-3	-	API	-	-	API/treat high blood pressure
76.	1,3cyclohexandione mono phenyl hydrazone	27385 -45-1	n-4	Intermediate	Carvedilol	72956 -09-3	Carvedilol/treat high blood pressure
77.	1,2,3,4-tetrahydrocarbazol-4-one	15128 -52-6	n-3	Intermediate	Carvedilol	72956 -09-3	Carvedilol/treat high blood pressure
78.	4-hydroxy-9-(H) carbazole	52602 -39-8	n-2	Intermediate	Carvedilol	72956 -09-3	Carvedilol/treat high blood pressure
79.	4-oxyranylmethoxy-9-(H)-carbazole	51997 -51-4	n-1	Intermediate	Carvedilol	72956 -09-3	Carvedilol/treat high blood pressure
80.	Omeprazole	73590 -58-6	-	API	-	-	API/ treat the symptoms of gastroesophageal reflux disease
81.	3,5-Dimethyl-4-nitropyridine N-oxide	14248 -66-9	n-4	Intermediate	Omeprazole	73590 -58-6	Omeprazole/ treat the symptoms of gastroesophageal reflux disease
82.	(4-methoxy-3,5-dimethylpyridin-2-yl)methanol	86604 -78-6	n-3	Intermediate	Omeprazole	73590 -58-6	Omeprazole/ treat the symptoms of gastroesophageal reflux disease
83.	2-(chloromethyl)-4-methoxy-3,5-dimethylpyridine	86604 -75-3	n-2	Intermediate	Omeprazole	73590 -58-6	Omeprazole/ treat the symptoms of gastroesophageal reflux disease
84.	5-Methoxy-2-(4-methoxy-3,5-dimethyl-pyridine-2-ylmethylsulfanyl)-1H-benzimidazole	73590 -85-9	n-1	Intermediate	Omeprazole	73590 -58-6	Omeprazole/ treat the symptoms of gastroesophageal reflux disease

85.	Lansoprazole	10357 7-45-3	-	API	-	-	API/treat certain stomach and esophagus problems
86.	4-nitro-2,3-dimethyl pyridine-N-oxide	37699 -43-7	n-4	Intermediate	Lansoprazole	10357 7-45-3	Lansoprazole /treat certain stomach and esophagus problems
87.	2-Hydroxy methyl-3-methyl pyridine hydrochloride	11817 -10-3	n-3	Intermediate	Lansoprazole	10357 7-45-3	Lansoprazole /treat certain stomach and esophagus problems
88.	2-chloromethyl-3-methyl pyridine hydrochloride	15325 9-31-5	n-2	Intermediate	Lansoprazole	10357 7-45-3	Lansoprazole /treat certain stomach and esophagus problems
89.	2[4-(2,2,2-Tri fluoro ethoxy)-3-methyl pyridine ]methyl thio-1H-Benzimidazole	12733 7-60-4	n-1	Intermediate	Lansoprazole	10357 7-45-3	Lansoprazole /treat certain stomach and esophagus problems
90.	Etoricoxib	20240 9-33-4	-	API	-	-	Etoricoxib/ reduce the pain and swelling
91.	1-(4-Methanesulfonyl-Phenyl)-ethanone	10202 37-77-7	n-4	Intermediate	Etoricoxib	20240 9-33-4	Etoricoxib/ reduce the pain and swelling
92.	(4-Methanesulfonyl-Phenyl)-acetic acid	90536 -66-6	n-3	Intermediate	Etoricoxib	20240 9-33-4	Etoricoxib/ reduce the pain and swelling
93.	2-(4-Methanesulfonyl-Phenyl)-1-(6-methylpyridin-3-yl)-ethanone	22161 5-75-4	n-2	Intermediate	Etoricoxib	20240 9-33-4	Etoricoxib/ reduce the pain and swelling
94.	(2-Chloro-3-dimethylamino-allylidene)-dimethyl-ammonium Salt of Phosphorus Hexafluoride	29175 6-76-8	n-1	Intermediate	Etoricoxib	20240 9-33-4	Etoricoxib/ reduce the pain and swelling
95.	Lurasidone hydrochloride	36751 4-88-3	-	API	-	-	API/treat certain mental/mood disorders
96.	Methanesulfonic acid 2-methane sulfonyloxymethyl-cyclohexyl methyl ester	75-75-2	n-1	Intermediate	Lurasidone hydrochloride	36751 4-88-3	Lurasidone hydrochloride /treat certain mental/mood disorders
97.	Irbesartan	13840 2-11-6	-	API	-	-	API/treat high blood pressure
98.	2-Butyl-4-spirocyclopentane-2-imidazolin-5-one hydrochloride	15125 7-01-1	n-3	Intermediate	Irbesartan	13840 2-11-6	Irbesartan/ treat high blood pressure
99.	4-Bromomethyl-2-cyanobiphenyl	11477 2-54-2	n-2	Intermediate	Irbesartan	13840 2-11-6	Irbesartan/ treat high blood pressure
100.	4'-(2-Butyl-4-oxo-1,3-diaza-spiro[4.4]non-1-en-3-ylmethyl)-biphenyl-2-carbonitrile	13840 1-24-8	n-1	Intermediate	Irbesartan	13840 2-11-6	Irbesartan/ treat high blood pressure

101.	Monetelucast Sodium	15176 7-02-1	-	API	-	-	API/control and prevent symptoms caused by asthma
102.	1-(3-[2-(7-Chloro-quinolin-2-yl)-vinyl]-phenyl)-3-[2-(1-hydroxy-1-methyl-ethyl)-phenyl]-propane-1-ol	28793 0-77-2	n-4	Intermediate	Monetelucast Sodium	15176 7-02-1	Monetelucast Sodium/control and prevent symptoms caused by asthma
103.	Methane sulfonic acid 1-(3-[2-(7-Chloro-quinolin-2-yl)-vinyl]-phenyl)-3-[2-(1-hydroxy-1-methyl-ethyl)-phenyl]-propyl ester	75-92-3	n-3	Intermediate	Monetelucast Sodium	15176 7-02-1	Monetelucast Sodium/control and prevent symptoms caused by asthma
104.	1-{1-(3-[2-(7-Chloro-quinolin-2-yl)-vinyl]-phenyl)-3-[2-(1-hydroxy-1-methyl-ethyl)-phenyl]-propylsulfanylmethyl}-cyclopropyl)-acetic acid	20080 4-28-0	n-2	Intermediate	Monetelucast Sodium	15176 7-02-1	Monetelucast Sodium/control and prevent symptoms caused by asthma
105.	Montelukast Dicyclohexylamine	57795 3-88-9	n-1	Intermediate	Monetelucast Sodium	15176 7-02-1	Monetelucast Sodium/control and prevent symptoms caused by asthma
106.	Folic acid	59-30-3	-	API	-	-	API/treat folic acid deficiency and certain types of anemia
107.	4-Nitro benzoyl Chloride	122-04-3	n-4	Intermediate	Folic acid	59-30-3	Folic acid/treat folic acid deficiency and certain types of anemia
108.	2-(4-Nitro benzoyl amino)pentanedionic	6758-40-3	n-3	Intermediate	Folic acid	59-30-3	Folic acid/treat folic acid deficiency and certain types of anemia
109.	2-(4-Aminobenzoyl amino)pentanedionic acid	4230-33-5	n-2	Intermediate	Folic acid	59-30-3	Folic acid/treat folic acid deficiency and certain types of anemia
110.	1,1,3-Trichloro propane-2-one	96-18-4	n-1	Intermediate	Folic acid	59-30-3	Folic acid/treat folic acid deficiency and certain types of anemia
111.	Bisoprolol Fumarate	66722-44-9	-	API	-	-	API/treat high blood pressure (hypertension)
112.	(4-((2-isopropoxyethoxy)methyl)phenol)	17703 4-57-0	n-3	Intermediate	Bisoprolol Fumarate	66722-44-9	Bisoprolol Fumarate /treat high blood pressure (hypertension)
113.	(2-((4-((2-isopropoxyethoxy)methyl)phenoxy)methyl)oxirane)	621-87-4	n-2	Intermediate	Bisoprolol Fumarate	66722-44-9	Bisoprolol Fumarate /treat high blood pressure (hypertension)
114.	(1-(4-((2-isopropoxyethoxy)methyl)phenoxy)-3-(isopropylamino)propan-2-ol)	12153 42-36-1	n-1	Intermediate	Bisoprolol Fumarate	66722-44-9	Bisoprolol Fumarate /treat high blood pressure (hypertension)
115.	Erythromycin Stearate	643-22-1	-	API	-	-	API/to treat a wide variety of bacterial infections
116.	Cephalexin	15686-71-2	-	API	-	-	API/ treat certain infections caused by bacteria

117.	Sulbactam	69388-84-7	-	API	-	-	API/treat certain infections caused by bacteria
118.	prednisolone	53-03-2	-	API	-	-	API/ treat conditions such as arthritis
119.	Metformine Hcl	1115-70-4	-	API	-	-	API/control high blood sugar
120.	Gabapentin	60142-96-3	-	API	-	-	API/prevent and control seizures.
121.	(1-aminomethyl-cyclohexyl)-acetic acid)	60175-04-4	n-1	Intermediate	Gabapentin	60142-96-3	Gabapentin/prevent and control seizures.
122.	Vitamin B6	58-56-0	-	API	-	-	API/ prevent or treat a certain nerve disorder
123.	Clavulanate potassium	61177-45-5	-	API	-	-	API/treat many different infections
124.	Carithromycin	81103-11-9	-	API	-	-	API/treat a wide variety of bacterial infections.
125.	Ciprofloxacin Lactate	857213-31-1	-	API	-	-	API/ treat serious infections
126.	Artesunate	88495-63-0	-	API	-	-	API/treat malaria
127.	Ofloxacin	82419-36-1	-	API	-	-	API/ treat a variety of bacterial infections
128.	Levofloxacin	100986-85-4	-	API	-	-	API/treat a variety of bacterial infections
129.	Tinidazole	19387-91-8	-	API	-	-	API/treat trichomoniasis
130.	Ornidazole	16773-42-5	-	API	-	-	API/treat people who have certain types of vaginal
131.	Meropenem	119478-56-7	-	API	-	-	API/ treat certain types of bacterial infections.
132.	3-[5-Dimethylcarbamoyl-1-(4-nitrobenzyloxycarbonyl)-pyrrolidin-3-ylsulfanyl]-6-(1-hydroxy-ethyl)-4-methyl-7-oxo-1-azabicyclo[3.2.0] hept-2-ene-2-carboxylic acid 4-nitrobenzyl ester	90776-58-2	n-1	Intermediate	Meropenem	119478-56-7	Meropenem/ treat certain types of bacterial infections.
133.	Paracetamol	103-90-2	-	API	-	-	API/treat aches and pain
134.	Ritonavir	155213-67-5	-	API	-	-	API/ treat human immunodeficiency virus (HIV) infection
135.	(1-Benzyl-4-tert-butoxycarbonylamino-2-hydroxy-5-phenylpentyl)-carbamic acid thiazol-5-ylmethyl ester	144163-97-3	n-4	Intermediate	Ritonavir	155213-67-5	Ritonavir/ treat human immunodeficiency virus (HIV) infection
136.	Thioisobutyramide	563-83-7	n-3	Intermediate	Ritonavir	155213-67-5	Ritonavir/ treat human immunodeficiency virus (HIV) infection

137.	1-(2-Isopropylthiazol-4-yl)-N-methylmethanamine	11851 67-55-8	n-2	Intermediate	Ritonavir	15521 3-67-5	Ritonavir/ treat human immunodeficiency virus (HIV) infection
138.	(S)-2-(3-((2-Isopropylthiazol-4-yl)methyl)-3-methylureido)-3-methylbutanoic acid	15421 2-61-0	n-1	Intermediate	Ritonavir	15521 3-67-5	Ritonavir/ treat human immunodeficiency virus (HIV) infection
139.	Diclofenac Sodium	15307 -79-6	-	API	-	-	API/to relieve pain, tenderness, swelling, and stiffness caused by osteoarthritis
140.	Aspirin	50-78-2	-	API	-	-	API/ reduce fever and relieve mild to moderate pain from conditions such as muscle aches
141.	Carbidopa	28860 -95-9	-	API	-	-	API/ treat the symptoms of Parkinson's disease or Parkinson-like symptoms
142.	Methyl Dopa Methyl Ester	18181 -08-3	n-3	Intermediate	Carbidopa	28860 -95-9	Carbidopa/ treat the symptoms of Parkinson's disease or Parkinson-like symptoms
143.	3,3-pentamethylene oxaziridine	1130-32-1	n-2	Intermediate	Carbidopa	28860 -95-9	Carbidopa/ treat the symptoms of Parkinson's disease or Parkinson-like symptoms
144.	Carbidopa Methyl Ester	91431 -01-5	n-1	Intermediate	Carbidopa	28860 -95-9	Carbidopa/ treat the symptoms of Parkinson's disease or Parkinson-like symptoms
145.	Carbamazepine	298-46-4	-	API	-	-	API/treat trigeminal neuralgia
146.	Olmesartan	14468 9-63-4	-	API	-	-	API/treat high blood pressure
147.	Acyclovir	59277 -89-3	-	API	-	-	API/treatment of herpes simplex virus infections of the skin
148.	Diacetyl Guanine	3056-33-5	n-2	Intermediate	Acyclovir	59277 -89-3	Acyclovir / treatment of herpes simplex virus infections of the skin
149.	Diacetyl acyclovir	75128 -73-3	n-1	Intermediate	Acyclovir	59277 -89-3	Acyclovir / treatment of herpes simplex virus infections of the skin
150.	Lopinavir	19272 5-17-0	-	API	-	-	API/ treat human immunodeficiency virus (HIV) infection

151.	Clindamycin Phosphate	24729-96-2	-	API	-	-	API/ treat acne
152.	Dexamethasone Sodium	2392-39-4	-	API	-	-	API/ treat conditions such as arthritis
153.	Rifampicin	13292-46-1	-	API	-	-	API/prevent and treat tuberculosis and other infections
154.	N-Methylene-t-butylamine	109-73-9	n-1	Intermediate	RIFAMPICIN	13292-46-1	RIFAMPICIN/ prevent and treat tuberculosis and other infections
155.	Valsartan	137862-53-4	-	API	-	-	API/treat high blood pressure
156.	(Methyl N-valeryl-N-[(2-cyanobiphenyl-4-yl)methyl]-l-valinate)	482577-59-3	n-1	Intermediate	Valsartan	137862-53-4	Valsartan/ treat high blood pressure
157.	Fluconazole	86386-73-4	-	API	-	-	API/prevent and treat a variety of fungal and yeast infections.
158.	(2,4-Difluoro-2-(1H-1,2,4-Triazole-1-Yl) Acetophenone)	86404-63-9	n-2	Intermediate	Fluconazole	86386-73-4	Fluconazole/ prevent and treat a variety of fungal and yeast infections.
159.	1-[2-(2,4-di fluorophenyl)-2,3-epoxypropyl]-1H-1,2,4-Triazole	86386-76	n-1	Intermediate	Fluconazole	86386-73-4	Fluconazole/ prevent and treat a variety of fungal and yeast infections.
160.	Aripiprazole	129722-12-9	-	API	-	-	API/ treat certain mental/mood disorders
161.	7-Hydroxy-3,4-dihydro-1H quinolin-2-one	205448-65-3	n-4	Intermediate	Aripiprazole	129722-12-9	Aripiprazole/ treat certain mental/mood disorders
162.	7-(4-Chloro-butoxy)-3,4-dihydro-1H-quinolin-2-one	129722-34-5	n-3	Intermediate	Aripiprazole	129722-12-9	Aripiprazole/ treat certain mental/mood disorders
163.	1-(2,3-Dichloro-phenyl)-piperazine Hydrochloride	119532-26-2	n-2	Intermediate	Aripiprazole	129722-12-9	Aripiprazole/ treat certain mental/mood disorders
164.	7-{4-[4-(2,3-Dichloro-phenyl)-piperazin-1-yl]-butoxy}-3,4-dihydro-1H-quinolin-2-one	129722-25-4	n-1	Intermediate	Aripiprazole	129722-12-9	Aripiprazole/ treat certain mental/mood disorders
165.	Nebivolol Hydrochloride	152520-56-4	-	API	-	-	API/ treat high blood pressure.
166.	6-Fluoro-2-oxiranyl-chroman	99199-90-3	n-3	Intermediate	Nebivolol Hydrochloride	152520-56-4	Nebivolol Hydrochloride/ treat high blood pressure.
167.	2-Benzylamino-1-(6-fluoro-chroman-2-yl)-ethanol	13781-67-4	n-2	Intermediate	Nebivolol Hydrochloride	152520-56-4	Nebivolol Hydrochloride/ treat high blood pressure.
168.	2-{Benzyl-[2-(6-fluoro-chroman-2-yl)-2-hydroxyethyl]-amino}-1-(6-fluoro-chroman-2-yl)-ethanol	929-706-85-4	n-1	Intermediate	Nebivolol Hydrochloride	152520-56-4	Nebivolol Hydrochloride/ treat high blood pressure.
169.	Lopinavir	192725-17-0	-	API	-	-	API/treat human immunodeficiency virus (HIV) infection.
170.	1-Imino-4-(N,N-dibenzylamino) 5-phenyl-3-oxo-pent-1-ene	156732-12-6	n-3	Intermediate	Lopinavir	192725-17-0	Lopinavir/treat human immunodeficiency virus (HIV) infection.



171.	(R,Z)-5-amino-2-(dibenzyl amino) -1,6-diphenyl hex-4-en-3-one	15673 2-13-7	n-2	Intermediate	Lopinavir	19272 5-17-0	Lopinavir/treat human immunodeficiency virus (HIV) infection.
172.	(2S, 3S, 5S)-2-Amino-3-hydroxy-5- (1-tetra hydro pyrimid-2-onyl)-3- methyl butanoyl) amino-1,6-diphenyl	116- 63-2	n-1	Intermediate	Lopinavir	19272 5-17-0	Lopinavir/treat human immunodeficiency virus (HIV) infection.
173.	Darunavir	20636 1-99-1	-	API	-	-	API/treat human immunodeficiency virus
174.	N-[2R,3S)-3-Tert butoxycarbonyl amino- 2-hydroxy-4-phenyl butyl]-isobutylamine	30296 4-08-5	n-2	Intermediate	Darunavir	20636 1-99-1	Darunavir/treat human immunodeficiency virus
175.	N-[(2R,3S)-3-Tert butoxycarbonylamino-2-hydroxy-4-phenyl butyl]-isobutylamine	16023 2-08-6	n-1	Intermediate	Darunavir	20636 1-99-1	Darunavir/treat human immunodeficiency virus
176.	Levetiracetam	10276 7-28-2	-	API	-	-	API/ treat seizures (epilepsy).
177.	N-(1-Carbamyl propyl)-4-chloro butyramide	10276 7-31-7	n-1	Intermediate	Levetiracetam	10276 7-28-2	Levetiracetam/ treat seizures (epilepsy).
178.	Pregabalin	14855 3-50-8	-	API	-	-	API/ treat neuropathic pain and fibromyalgia.
179.	2-(3-Methyl-butylidene)-melonic acid diethyl ester	86369 -44-0	n-3	Intermediate	Pregabalin	14855 3-50-8	Pregabalin/treat neuropathic pain and fibromyalgia.
180.	3-aminomethyl 5-methyl hexanoic acid	14855 3-50-8	n-2	Intermediate	Pregabalin	14855 3-50-8	Pregabalin/treat neuropathic pain and fibromyalgia.
181.	s(+)-Pregabalin mandalate salt	4118- 51-8	n-1	Intermediate	Pregabalin	14855 3-50-8	Pregabalin/treat neuropathic pain and fibromyalgia.
182.	Atorvastatin calcium trihydrate	13452 3-03-8	-	API	-	-	API/ to reduce such risk even if your cholesterol levels are normal.
183.	[6-(2-Amino-ethyl)-2,2-dimethyl- [1,3]dioxan-4-yl]-acetic acid tert-butyl ester	125- 86-0	n-3	Intermediate	Atorvastatin calcium trihydrate	13452 3-03-8	Atorvastatin calcium trihydrate/ to reduce such risk even if your cholesterol levels are normal.
184.	(6-{2-[2-(4-Fluoro-phenyl)-5-isopropyl-3- phenyl-4-phenylcarbamoyl-pyrrol-1-yl]- ethyl}-2,2-dimethyl-[1,3]dioxan-4-yl)- acetic acid tert-butyl ester	26598 9-42-2	n-2	Intermediate	Atorvastatin calcium trihydrate	13452 3-03-8	Atorvastatin calcium trihydrate/ to reduce such risk even if your cholesterol levels are normal.
185.	7-[2-(4-Fluoro-phenyl)-5-isopropyl-3-phenyl- 4-phenylcarbamoyl-pyrrol-1-yl]-3,5- dihydroxy-heptanoic acid tert-butyl ester	12597 1-95-1	n-1	Intermediate	Atorvastatin calcium trihydrate	13452 3-03-8	Atorvastatin calcium trihydrate/ to reduce such risk even if your cholesterol levels are normal.
186.	Rosuvastatin Calcium	14709 8-20-2	-	API	-	-	API/help lower "bad" cholesterol

187.	N-[4-(4-Fluoro-phenyl)-5-formyl-6- isopropyl-pyrimidin-2-yl]-N-methyl -methanesulfonamide	29096-933	n-4	Intermediate	Rosuvastatin Calcium	14709 8-20-2	Rosuvastatin Calcium/ help lower "bad" cholesterol
188.	3-(tert-Butyl-dimethyl-silanyloxy)-7-[4-(4-fluorophenyl)-6- isopropyl-2-(methanesulfonyl-methyl-amino) -pyrimidin-5-yl]-5-oxo-hept-6-enoic acid methyl ester	35580 6-00-7	n-3	Intermediate	Rosuvastatin Calcium	14709 8-20-2	Rosuvastatin Calcium/ help lower "bad" cholesterol
189.	7-[4-(4-Fluoro-phenyl)-6-isopropyl-2-(methanesulfonyl -methyl-amino)-pyrimidin-5-yl]-3-hydroxy -5-oxo-hept-6-enoic acid methyl ester	14711 8-39-6	n-2	Intermediate	Rosuvastatin Calcium	14709 8-20-2	Rosuvastatin Calcium/ help lower "bad" cholesterol
190.	7-[4-(4-Fluoro-phenyl)-6-isopropyl-2-(methanesulfonylmethyl-amino)-pyrimidin-5-yl]-3,5-dihydroxyhept- 6-enoic acid methyl ester	14711 8-40-9	n-1	Intermediate	Rosuvastatin Calcium	14709 8-20-2	Rosuvastatin Calcium/ help lower "bad" cholesterol
191.	Hydroxychloroquine	118-42-3	-	API	-	-	API/treat rheumatoid arthritis and systemic lupus erythematosus
192.	4, 7-Dichloroquinoline	86-98-6	n-1	Intermediate	Hydroxychloroquine	118-42-3	Hydroxychloroquine/ treat rheumatoid arthritis and systemic lupus erythematosus
193.	Torseamide	56211-40-6	-	API	-	-	API /Heart failure, liver disease, and kidney disease
194.	(2-aminobenzenesulfonic acid)	88-21-1	n-3	Intermediate	Torseamide	56211-40-6	Torseamide /Heart failure, liver disease, and kidney disease
195.	(4-chloropyridine-3-sulfonamide)	18368-64-4	n-2	Intermediate			
196.	(4-(m-tolylamino)pyridine-3-sulfonamide)	72811-73-5	n-1	Intermediate			
197.	Amisulpride	53583-79-2	-	API	-	-	API /Antipsychotic
198.	Irbesartan	13840 2-11-6	-	API	-	-	API /Antihypertensive
199.	(4'-(2-Butyl-4-oxo-1,3-diazaspiro[4,4]non-1-ene-3-yl methyl)biphenyl-2-carbonitrile)	13840 1-24-8	n-2	Intermediate	Irbesartan	13840 2-11-6	Irbesartan /Blood pressure, heart attacks, and kidney problems
200.	(2-n-butyl-4-spirocyclopentrate-1-((2'-triphenyl methyl tetrazol-5-yl) biphenyl-4-yl methyl)-2-imidazole)	12475 1-00-4	n-1	Intermediate			
201.	Flurbiprofen	5104-49-4	-	API	-	-	API /Painkiller
202.	Cloxacillin Sodium	7081-44-9	-	API	-	-	API /Antibiotic

203.	Terbinafine Hydrochloride	78628-80-5	-	API	-	-	API /Antifungal
204.	Roxithromycin	80214-83-1	-	API	-	-	API /Antibiotic
205.	Lisinopril	83915-83-7	-	API	-	-	API /Antihypertensive
206.	Hydrochlorothiazide	58-93-5	-	API	-	-	API/Antihypertensive
207.	Atenolol	29122-68-7	-	API	-	-	API /Antihypertensive
208.	Domperidone	57808-66-9	-	API	-	-	API /Antiemetic
209.	Dabigatran etexilate mesylate	211915-06-9	-	API	-	-	API /prevent blood clots
210.	(3-(3-Amino-4-methylamino-benzoyl)-pyridine-2-yl-amino)-propionic acid ethyl ester) & ((4-Cyano-phenylamino)acetic acid)	42288-26-6	n-4	Intermediate	Dabigatran etexilate mesylate	211915-06-9	Dabigatran /prevent blood clots
211.	(3-((2-[(4-cyano-phenylamino)-methyl]-1-methyl-1H-benzimidazole-5-carbonyl)-pyridine-2-yl-amino)-propionic acid ethyl ester methane sulfoate)	211915-84-3	n-3	Intermediate			
212.	(3-((2-[(4-carbamimidoyl-phenylamino)-methyl]-1-methyl-1H-benzimidazole-5-carbonyl)-pyridine-2-yl-amino)-propionic acid ethyl ester hydrogen chloride)	7647-01-0	n-2	Intermediate			
213.	(3-[(2-[(4-(Hexyloxycarbonylamino-imino-methyl)-phenylamino)-methyl]-1-methyl-1H-benzimidazole-5-carbonyl)-pyridine-2-yl-amino]-propionic acid ethyl ester)	211915-06-9	n-1	Intermediate			
214.	Strontium Renelate	135459-90-4	-	API	-	-	API /Osteoporosis
215.	(Diethyl 3-oxopentanedioate)	105-50-0	n-3	Intermediate	Strontium Renelate	135459-90-4	Strontium Renelate /postmenopausal women with osteoporosis
216.	(Ethyl 5-amino-4-cyano-3-(2-ethoxy-2-oxoethyl)thiophene-2-carboxylate)	58168-20-0	n-2	Intermediate			

217.	(diethyl 2,2'-((3-cyano-4-(2-ethoxy-2-oxoethyl)-5-(ethoxycarbonyl)thiophen-2-yl)azanediyl)diacetate)	58194-26-6	n-1	Intermediate			
218.	Phenylephrine HCl	61-76-7	-	API	-	-	API /stuffy nose, sinus, and ear symptoms
219.	(3-acetylphenyl acetate)	2454-35-5	n-3	Intermediate	Phenylephrine HCl	61-76-7	Phenylephrine HCl /stuffy nose, sinus, and ear symptoms
220.	(3-(2-bromoacetyl)phenyl acetate or 2-(benzyl(methyl)amino-1-(3-hydroxyphenyl)ethane-1-one)	38396-89-3 & 71786-67-9	n-2	Intermediate			
221.	(3-(1-hydroxy-2-(methylamino)ethyl)phenol)	532-38-7	n-1	Intermediate			
222.	Cetirizine Dihydrochloride	83881-52-1	-	API	-	-	API /Relieve allergy symptoms such as watery eyes, runny nose, itching eyes/nose, sneezing, hives, and itching
223.	4-chloro benzhydryl piperazine ethanol	109806-71-5	n-1	Intermediate	Cetirizine Dihydrochloride	83881-52-1	Cetirizine Dihydrochloride /Relieve allergy symptoms such as watery eyes, runny nose, itching eyes/nose, sneezing, hives, and itching
224.	Itopride Hydrochloride	122892-31-3	-	API	-	-	API /Gastrointestinal symptoms of functional, nonulcer dyspepsia (chronic gastritis)
225.	Rabeprazole Sodium	117976-90-6	-	API	-	-	API /Gastroesophageal reflux disease (GERD)
226.	(2-[4-(3-methoxypropoxy)-3-methylpyridin-2-ylmethanesulfonyl]-1H-benzimidazole)	117977-21-6	n-1	Intermediate	Rabeprazole Sodium	117976-90-6	Rabeprazole Sodium/gastroesophageal reflux disease (GERD), duodenal ulcers
227.	Donepezil Hydrochloride	120011-70-3	-	API	-	-	API /Antidepressant
228.	Celecoxib	169590-42-5	-	API	-	-	API /pain or inflammation
229.	(4,4,4-trifluoro-1-(4-methylphenyl) butano-1,3-dione)	720-94-5	n-1	Intermediate	Celecoxib	169590-42-5	Celecoxib/pain or inflammation
230.	Pantoprazole Sodium	138786-67-1	-	API	-	-	API /stomach and esophagus problems
231.	(5-Difluoromethoxy-2-(3,4-dimethoxy-pyridin-2-ylmethylsulfanyl)-1H-benzimidazole)	102625-64-9	n-1	Intermediate	Pantoprazole Sodium	138786-67-1	Pantoprazole Sodium /stomach and esophagus problems
232.	Artemether	71963-77-4	-	API	-	-	API /Antimalarial

233.	Ampicillin Trihydrate	7177-48-2	-	API	-	-	API /Antibiotic
234.	Levosulpiride	23672-07-3	-	API	-	-	API /symptoms of schizophrenia, anxiety disorders, and dysthymia
235.	(2-methoxybenzoic acid)	579-75-9	n-4	Intermediate	Levosulpiride	23672-07-3	Levosulpiride /symptoms of schizophrenia, anxiety disorders, and dysthymia
236.	(2-methoxy-5-sulfamoylbenzoic acid)	22117-85-7	n-3	Intermediate			
237.	(Methyl 1,2-methoxy-5-sulfamoylbenzolate)	33045-52-2	n-2	Intermediate			
238.	S-1-Ethyl-2-aminomethyl pyrrolidine	22795-99-9	n-1	Intermediate			
239.	Moxifloxacin HCl	186826-86-8	-	API	-	-	API /Antibiotic
240.	(5,8-dihydronaphthalen-1-yl acetate)	51927-56-1	n-1	Intermediate	Moxifloxacin HCl	186826-86-8	Moxifloxacin/ Antibiotic
241.	Clotrimazole	23593-75-1	-	API	-	-	API /Antifungal
242.	Famotidine	76824-35-6	-	API	-	-	API/ used to treat ulcers of the stomach and intestines
243.	Amlodipine maleate	1185246-15-4	-	API	-	-	API/to prevent certain types of chest pain (angina).
244.	Bisacodyl	603-50-9	-	API	-	-	API/stimulant laxatives
245.	Doxofylline	69975-86-6	-	API	-	-	API/treatment of asthma
246.	Diprophyllin	479-18-5	n-2	Intermediate	Doxofylline	69975-86-6	Doxofylline/ treatment of asthma
247.	Theophylline-7-acetal	5614-53-9	n-1	Intermediate			
248.	Esomeprazole Magnesium	161973-10-0	-	API	-	-	API/ to treat certain stomach and esophagus problems
249.	Ivabradine Hydrochloride	148849-67-6	-	API	-	-	API/ to treat heart failure
250.	Etoricoxib	202409-33-4	-	API	-	-	API/Pain killers
251.	Omeprazole Magnesium	95382-33-5	-	API	-	-	API/ to treat certain stomach and esophagus problems
252.	Amlodipine Besylate	88150-42-9	-	API	-	-	API/ treatment of chronic stable angina
253.	Prasugrel	150322-43-3	-	API	-	-	API/Antiplatelet
254.	5-[a-cyclopropyl carbonyl-2-fluoro benzyle)-2-nitro-4,5,6,7-tetrahydrothieno[3,2-c]pyridine HCl	--	n-2	Intermediate	Prasugrel	150322-43-3	Prasugrel/ Antiplatelet

255.	2-amino-5(-[α-cyclopropyl carbonyl-2-fluoro benzyl)-4,5,6,7-tetrahydrothieno[3,2-c]pyridine HCl	--	n-1	Intermediate			
256.	Nicorandil	65141-46-0	-	API	-	-	API/ treatment of chronic stable angina pectoris
257.	N-(2-Hydroxyethyl)pyridine-3-carboxamide	6265-73-2	n-1	Intermediate	Nicorandil	65141-46-0	Nicorandil/ treatment of chronic stable angina pectoris
258.	Cilansetron	120635-74-7	-	API	-	-	API/ treatment of diarrhoea-predominant irritable bowel syndrome (IBS)
259.	Sitagliptine	486460-32-6	-	API	-	-	API/ to control high blood sugar
260.	Tiotropium Bromide	186691-13-4	-	API	-	-	API/ to control and prevent symptoms caused by ongoing lung disease
261.	Silodosin	160970-54-7	-	API	-	-	API/ to treat signs and symptoms of an enlarged prostate gland
262.	Solifenacin	242478-38-2	-	API	-	-	API/to treat an overactive bladder.
263.	Hydroxy Chloroquine Sulfate	747-36-4	-	API	-	-	API/ to prevent and treat malaria & treatment of rheumatoid arthritis, lupus, and porphyria cutaneatarda.
264.	Febuxosate	144060-53-7	-	API	-	-	API/ to prevent gout attacks by reducing the levels of uric acid in your blood
265.	Lornoxicam	70374-39-9	-	API	-	-	API/nonsteroidal anti-inflammatory drug
266.	5-chloro-3-(chlorosulfonyl) thiophene-2-methylcarboxylate	70374-37-7	n-4	Intermediate			
267.	5 - Chloro-3-[(methoxy carbonyl) amino] sulfonyl]-2- thiophene carboxylic acid methyl ester	70374-38-8	n-3	Intermediate			
268.	6-chloro-4-hydroxy-2H-thieno[2,3-e]-1,2-thiazine-3-carboxylic acidmethyleneester1,1,-dioxide	70415-50-8	n-2	Intermediate	Lornoxicam	70374-39-9	Lornoxicam/ nonsteroidal anti-inflammatory drug
269.	6-chloro-4-hydroxy-2-methyl-2H-thieno[2,3-e]-1,2-thiazine-3-carboxylic acidmethyleneester1,1,-dioxide	70415-50-8	n-1	Intermediate			

- The project falls under Category B2 of project activity 5(f) as per the schedule of EIA Notification 2006 and amendment dated 27<sup>th</sup> March, 2020.

- The proposal was considered in the meeting dated 15.07.2021.
- During the meeting dated 15.07.2021, the project was appraised based on the information furnished in Form – 1, Pre-Feasibility Report, Environment Management Plan and details submitted by e-mail.
- Project proponent (PP) and technical expert of PP, M/s. Envycraft Environmental Services remains present during video conference meeting.
- This is Greenfield project for manufacturing of synthetic organic chemicals [API] at Survey/Block No. 167 (Old Survey/Block No. 110), Village: Vav, Tal: Vagra, Dist: Bharuch-392165, outside notified area. Product profile with its end-use is discussed in depth. Committee noted that PP has addressed proposed Located in Vav Village (Non-Agriculture land) - outside of GIDC and there are no water bodies, natural drain, National monuments, residential habitat etc. within 500 m radius from the project boundary. There are no Eco sensitive zones, wild life sanctuaries within the 10 km area from the boundary of the project site.
- Committee noted the following:
  - Product profile with specific End-use of each product. At a time, 3-4 products can be manufactured.
  - Source of water is private tanker.
  - Unit had proposed segregation of effluent stream proposal and high COD stream from process will be passed through solvent stripper and treated high COD stream along with low COD stream will be treated in ETP and treated effluent will be sent to CMEE of M/s. BEIL for evaporation.
  - Natural gas or bio coal is proposed as fuel in boilers and TFH. Separate APCM like MCS, Bag filter proposed for boiler and TFH.
  - Two stage scrubber proposed for each process stack.
  - PP submitted hazardous waste matrix mentioning source of generation, quantity and Mode of disposal and committed to comply the Hazardous and Other Wastes (Management and Transboundary Movement) Rules 2016.
  - Greenbelt development plan with 4620 Sq m (33%) of plot area.
  - OHC with 20 Sq m area.
- Committee deliberated on Product profile, Layout plan, Storage details, Process safety, Fire safety, water balance & waste water management, Flue gas and process gas emission & Air Pollution Control System, Hazardous waste matrix, EMP, CER, Green belt, etc.
- Since, the unit falls in B2 category as per the MoEF&CC's amended EIA Notification vide S.O. 1223(E) dated 27.03.2020, the public consultation is not applicable as per paragraph 7(i) III (i) (e) of the Environment Impact Assessment Notification-2006.
- Looking to NaCN usage and storage as raw material for proposed project, Committee insisted for treatment of cyanide stream effluent, technical expert of PP could not addressed treatment of cyanide stream in water balance diagram.
- **After detailed discussion, Committee unanimously decided to consider the project in one of upcoming meeting after submission of following documents:**
  1. Submission of details regarding cyanide stream generation from each product source, from where

cyanide stream generated and its adequate treatment at source before sending cyanide stream to ETP for proposed project for further treatment.

- PP submitted their reply for the query raised by SEAC during SEAC meeting dated 15.07.2021 through email.
- The proposal was reconsidered in the SEAC video conference meeting dated **05.08.2021**.
- PP submitted revised product profile as above and revised Salient features of the project including Water, Air and Hazardous waste management are as under:

Sr. no.	Particulars	Details																																																																	
<b>A-1</b>	<p>Total <b>cost of Proposed</b> Project (Rs. in Crores):</p> <table border="1" style="margin-left: 40px;"> <tr> <td>Total Project</td> <td>7.1Crores</td> </tr> </table> <p>Break-up of proposed project Cost:</p> <table border="1" style="margin-left: 40px;"> <thead> <tr> <th>Details</th> <th>Project Cost (Rs. In Crores)</th> </tr> </thead> <tbody> <tr> <td>Land</td> <td>1.80</td> </tr> <tr> <td>Building</td> <td>1.50</td> </tr> <tr> <td>Plant &amp;Machinery</td> <td>2.10</td> </tr> <tr> <td>Other</td> <td>1.70</td> </tr> </tbody> </table>	Total Project	7.1Crores	Details	Project Cost (Rs. In Crores)	Land	1.80	Building	1.50	Plant &Machinery	2.10	Other	1.70																																																						
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		Flame Proof Electric Fitting	7.0	0.25	0.05	0.30
5	AWH Monitoring	In House Monitoring	2.0	0.10	0.05	0.15
6	Green Belt Development	Trees	3.3	0.33	0.17	0.50
7	Occupational Health	OHC, Training & Medical Checkup	2.00	0.10	0.20	0.30
8	CER Activities	2% as per OM dated 01/05/2018	14.5	0.071	0.047	0.118
<b>Total</b>			<b>167.3 ~170.0</b>			<b>57.528</b>
<b>Summary</b>						
Cost of Project in Crores				7.10Crores		
EMP Capital Cost in Crores				1.673 Crores		
EMP Recurring Cost in Crores				6.90 Crores		
<b>A-3</b>	<b>Details of CER as per OM dated 01/05/2018 (In case of project falls under CPA/SPA, CER fund allocation to be at least 1.5 times the slabs given in the OM dated 01.05.2018 for SPA and 2 times for CPA in case of Environmental Clearance as per the mechanism published vide MoEF&amp;CC's OM vide 31.10.2019.)</b>					
	% as per the OM	Rs. in Lacs				
	2%	14.5				
Brief note on proposed activities:						
<b>Activities (On basis of Needs Assessment)</b>			<b>Phase Wise Budget (Rs. In Lakh)</b>			
			<b>1st Year</b>	<b>2nd Year</b>	<b>Total</b>	
<b>Health-</b>						
<ul style="list-style-type: none"> <li>Provide Ambulance with medical equipment (No.1) –<b>Village: Vav</b></li> </ul>			8.0	-	8.00	
<b>Potable Water (treatment facility)</b>						
<ul style="list-style-type: none"> <li>Drinking Water Facility RO System (35 KLD X 1 Nos.) (Rs. lakh 3.5 + 0.7 recurring ) <b>Village- Vadadla</b></li> <li>Rain water recharge (percolated borewell -2 Nos.) (Rs. lakh 1.5 + 0.35 recurring each)- <b>Galenda &amp; Vadadla</b></li> </ul>			3.25	3.25	6.50	
<b>Total Cost</b>			<b>Approx. INR 14.50 Lakh</b>			
<b>B</b>	<b>Land / Plot ownership details:</b> Non Agriculture Land (M/s. Nishal Enterprises Pvt Ltd)					
<b>B-1</b>	<b>Plot area</b>					
	Total Plot area					
	14000.00Sq. m.					
<b>B-2</b>	Brief note on <b>Area adequacy</b> in line to proposed project activities:					
	➤ Company will store its raw material in Drums & Tanks (We procure Raw Materials from the local market. 90% of these rawmaterials are easily available from this					

market. Hence, no excess quantity of raw materials will be stored).

- List of Hazardous chemicals stored in tanks shown below.

S.N	Name of chemical	Quantity (Nos.)	Total (Nos.)	Total Qty. to be store (KL)
<b>NON -PESO – 5 Nos.</b>				
1	Sulphuric Acid	5 KL	1 Nos.	10 KL
2	Hydrochloric Acid	15 KL	1 Nos.	15 KL
3	Nitric Acid	5 KL	1 Nos.	5 KL
4	Liq. Ammonia	15 KL	1 Nos.	15 KL
5	Caustic	10 KL	1 Nos.	10 KL
<b>PESO – 8 Nos.</b>				
1	IPA	15 KL	1 Nos.	15 KL
2	Methanol	15 KL	1 Nos.	15 KL
3		20 KL	1 Nos.	20 KL
4	Toluene	20 KL	1 Nos.	20 KL
5	Cyclohexane	15 KL	1 Nos.	15 KL
6	Ethyl Acetate	15 KL	1 Nos.	15 KL
7		20 KL	1 Nos.	20 KL
8	Acetone	15 KL	1 Nos.	15 KL
<b>H2-Bank</b>				
1	Hydrogen	2.2 kg X 60 Nos.	1 Nos.	0.14

- Area required for ETP 110.00 m<sup>2</sup> and 100.00 m<sup>2</sup> area provided for the Boiler House.
- Company has provided 30 m<sup>2</sup> for storage fuel & 30 m<sup>2</sup> fly ash storage area (fly ash will be collect, stored in hazardous area).
- 1505.00 m<sup>2</sup> (G+2) area will be provided for the manufacturing of the proposed products.

Sr. No.	Particulars	Criteria for Storage	Inventory Required (MT)(KL)	Area Required m <sup>2</sup>	Area Proposed m <sup>2</sup>
1	Finished product storage area (2 week inventory)	(Max. 250 Drum) 0.3 MT/ 1m <sup>2</sup>	50.00	400.00	700.0
2	Raw Material Store area (G+2) (2 week inventory)	0.3 MT/ 1m <sup>2</sup>	200.00	1000.00	2205.0
3	Drum Storage Area (Storage at a time)	Max. 200 Drum (0.3 MT/ 1m <sup>2</sup> )	40.00	150.00	300.0
4	Petroleum Storage Area (PESO) (Storage at a time)	15 KL X 5 20 KL X 3	135.00	400.00	700.0
5	Tank farm Area (Non-PESO) (Storage at a time)	5 KL X 2 10 KL X 1 15 KL X 2	50.00	300.00	700.0
6	Cylinder Storage Area (HCl, NH <sub>3</sub> & Nitrogen gas) (Storage at a time)	-	1	50.00	100.0
7	Tonner Storage Area	Chlorine gas	0.9	50.00	100.0
8	Hydrogen Bank (set of	Hydrogen	0.14	-	32.0

		Cylinder) area	gas			
	9	Hazardous Waste Storage Area (90 Day Inventory)	-	725&115 (Fly Ash)	840.00	1400.0
				<b>1317.04M T</b>	<b>3190 m<sup>2</sup></b>	<b>6237 m<sup>2</sup></b>
	<p>➤ Hence, adequate area is available for proposed Bulk drug &amp; its intermediate mfg. Facility.</p>					
<b>B-3</b>	<b>Green belt area</b>					
		Total (Sq. meter)				
	Area in Sq. meter	4620.0 Sq. m. (33 % of total plot area) <b>In plant premises</b>				
	% of total area	33%				
<b>C</b>	<b>Employment generation</b>					
		Total				
		35 Employees Direct = 15 Employees Indirect = 20 Employees				
<b>D</b>	<b>WATER</b>					
<b>D-1</b>	<b>Source of Water Supply</b> (GIDC, Bore well, Surface water, Tanker supply etc...)					
	<ul style="list-style-type: none"> <li>Private tanker</li> </ul>					
	Status of permission from the concern authority.					
	<ul style="list-style-type: none"> <li>Will be obtain</li> </ul>					
<b>D-2</b>	<b>Water consumption (KLD)</b>					
	<b>Sr. No.</b>	<b>Category</b>	<b>Water Consumption (KL/Day)</b>			<b>Remarks</b>
			<b>Total Water</b>	<b>Recycled</b>	<b>Fresh Water</b>	
	1.	Domestic	1.50	-	1.50	
	2.	Gardening	10.50	-	10.50	Private tanker
	3.	Industrial				
		Process	32.00	-	32.00	<b>WC:</b> Omeprazole Magnesium
		Boiler	48.00	38.00	10.00	Total Water requirement: 48 KLD Condensate Recovery: 38 KLD Make up Water: 10KLD
		Cooling	14.00	-	14.00	
		Washing	1.50	-	1.50	
		Scrubbing	6.00	2.00	4.00	Boiler & Cooling blowdown will be reuse after neutralization.
		<b>Total Industrial</b>	<b>101.50</b>	<b>40.00</b>	<b>61.50</b>	
		<b>Total (1 + 2 + 3)</b>	<b>113.50</b>	<b>40.00</b>	<b>73.50</b>	

**Brief Note on worst case scenario for water consumption:**

- Total Fresh Water Requirement of the proposed project will be 73.50 KLD, out of which Water Consumption for Process will be 32 KLD.
- Worst Case Scenario;

S.N	Product Name	Water req. (in KL) for 1 MT production	Total Production (MT/Month)	Total water req. (KLD)
1.	Omeprazole Magnesium	9.52 KL	100	31.75 KLD
<b>Hence Worst Case Considered is</b>				<b>31.75 ~ 32 KLD</b>

Summary of water requirement	Quantity KLD	Remarks
<b>Total water requirement for the project (A)</b>	113.50	-
Quantity to be <b>recycled / reused (B)</b>	40.00	38.00 KLD Recycled (Boiler Condensate Recovery) 2.0 KLD Reused (Boiler blow down & Cooling waste water)
Total <b>fresh water</b> requirement <b>(C)</b>	73.50	<b>Source:</b> GIDC Water Supply Authority

Ensure **Total water requirement = Fresh water + Recycled water**  
i.e. **A = B + C**

**Reuse/Recycle details (KLD) with feasibility.**

**[Source of reuse & application area]**

Source of waste water for reuse in KLD (From where it is coming)	Application area with quantity in KLD (Where it is used)	Characteristics of waste water to be reused (COD, BOD, TDS etc.)	Remarks regarding feasibility to reuse
Boiler Condensate (38.00 KLD)	Boiler (38.00 KLD)	pH: 7.5-8.0 TDS: <200 mg/l BOD: BDL COD: BDL	Yes, it is feasible.
Boiler Blowdown 0.6 KLD	Scrubber (2.0 KLD)	pH: 6.0-8.0 TSS: < 77 mg/l TDS: <250 mg/l BOD: <14 mg/l COD: <43 mg/l	
Cooling Waste water 1.4 KLD			

**In case of no reuse/recycle of waste water, Give brief note on justification as why no reuse/recycle.**

**D-3 Waste water generation (KLD)**

	Category	Wastewater Generation(KL/Day)	Remarks
1.	Domestic	1.20	treated in ETP
2.	Industrial		
	Process	32.00	<b>Omeprazole Magnesium</b>
	Boiler	0.60	Reused for Scrubbing



Treatment scheme including segregation at source. **(Give Characteristics of each stream i.e. COD, BOD, TDS etc.) In case of stream segregation, Separate ETP (ETP-1, ETP-2....) for each stream shall be proposed.**

Treatment facility within premises with **capacity**

[In-house ETP (Primary, Secondary, Tertiary), MEE, Stripper, Spray Dryer, STP etc.

- Hydraulic Load –
  - ✓ In-house Stripper: 32.00 KLD
  - ✓ In-House Primary ETP:36.3 KLD
- Capacity—
  - ✓ In-house Stripper: 40.0 KLD
  - ✓ In-House ETP: 45.0 KLD

**Stream 1 –**

- Wastewater 2.0 KLD (0.6 KLD from Boiler & 1.4 KLD from cooling) will be collected in Equalization cum Neutralization Tank & then reused for Scrubbing.

Sr. No.	Parameter	Unit	Utilities Characteristics		Combine Effluent after neutralization
			Boiler	Cooling	
<b>Quantity (KLD)</b>			<b>0.6</b>	<b>1.4</b>	<b>2.0</b>
1	pH	pH Unit	7.5-8.0	7.5-8.0	6.0-8.0
2	TSS	mg/L	56	87	77
3	TDS	mg/L	500	100	<250
4	BOD	mg/L	10	16	<14
5	COD	mg/L	30	50	<43
6	Ammo. Nitrogen	mg/L	Nil	Nil	Nil

**Stream 2–**

- Concentrate stream of 32.0 KLD from process (Worst Case).
- It will be neutralising at source then effluent will be allowed to in-house Solvent Stripper, where VOC will be stripped off.
- Treated effluent from stripper (31.6 KLD) will be allowed to in-house Primary ETP.

Sr. No.	Parameter	Unit	Worst Case from Process	After Solvent stripper
			Omeprazole Magnesium	
<b>Quantity (KLD)</b>			<b>32.0</b>	<b>31.6</b>
1	pH	pH Unit	6.5-7.5 (Neutralization at source)	6.5-7.5
2	TSS	mg/L	180	180
3	TDS	mg/L	20750	20750
4	BOD	mg/L	11210	4484
5	COD	mg/L	33980	13592
6	Ammo. Nitrogen	mg/L	Nil	NIL

**Stream 3 -**

- Dilute Stream 3.5 KLD (1.5 KLD from Washing, 1.0 KLD 25-30% NaCl/NaOCl Scrubbing Soln.& 1.0 KLD 25-30% NaNO<sub>2</sub> Scrubbing Soln.) will be treated to in-house Primary ETP.

Sr. No.	Parameter	Unit	Stream from other utilities Characteristics		Combine Effluent
			Washing	Scrubbing	
<b>Quantity (KLD)</b>			<b>1.5</b>	<b>2.0</b>	<b>3.5</b>
1	pH	pH Unit	6.0-7.0	7.0-8.0	6.0-8.0
2	TSS	mg/L	150	70	133

3	TDS	mg/L	2500	500	1350
4	BOD	mg/L	800	210	460
5	COD	mg/L	2400	625	1380
6	Ammo. Nitrogen	mg/L	Nil	Nil	Nil

**Stream 4(Combined Treated of Stream-2 + Stream-3& Domestic Waste Water)**

- Combine Effluent 36.30 KLD (Dilute Stream 3.5 KLD + After Solvent Stripper 31.6 KLD + Domestic Wastewater 1.2 KLD) will be treated in-house Primary ETP.
- Treated Effluent 35.9~36 KLD sent to Common Evaporation Facility for further treatment and disposal.

Sr. No.	Parameter	Unit	Combine Effluent from utility	After Solvent stripper	Domestic Wastewater	Combine Effluent to primary inlet	After Primary treatment
<b>Quantity (KLD)</b>			<b>3.5</b>	<b>31.6</b>	<b>1.2</b>	<b>36.30</b>	<b>~36.0</b>
1	pH	pH Unit	6.0-8.0	6.5-7.5	6-8	6.5-7.5	6.5-7.5
2	TSS	mg/L	133	180	300	175	53
3	TDS	mg/L	1350	20750	750	18220	19130
4	BOD	mg/L	460	4484	250	3945	3150
5	COD	mg/L	1380	13592	10	11960	9550
6	Ammo. Nitrogen	mg/L	NIL	NIL	NIL	NIL	NIL

**Stream 5(Scrubbing Solution)**

- 1.0 KLD (25-30% NaCl/NaOCl) and 1.0 KLD (25-30 % NaNO<sub>2</sub>) will be will be treated in-house ETP and then sent to Common Evaporation Facility.
- 1.5 KLD (25-30% Na<sub>2</sub>SO<sub>3</sub>) and 1.5 KLD (25-30 % NaBr/HBr) will be sent to end users registered under Rule-9.
- 1.0 KLD (25-30% Liq. Ammonia) will be reused within Premises.

Note: (In case of CETP discharge) :

**Management of waste water keeping in view direction under section 18 (1) (b) of the Water (Prevention and Control of Pollution) act, 1974 issued by CPCB regarding compliance of CETP.**

- Not Applicable – Treated Effluent 36.0 KLD will be sent to Common Evaporation Facility for further treatment and disposal.

Brief note on adequacy of ZLD (In case of Zero Liquid Discharge):

- Treated Effluent 36.0 KLD will be sent to Common Evaporation Facility for further treatment and disposal.

**D-6** In case of Common facility (CF) i.e. **CETP, Common Spray dryer, Common MEE, CHWIF etc.**

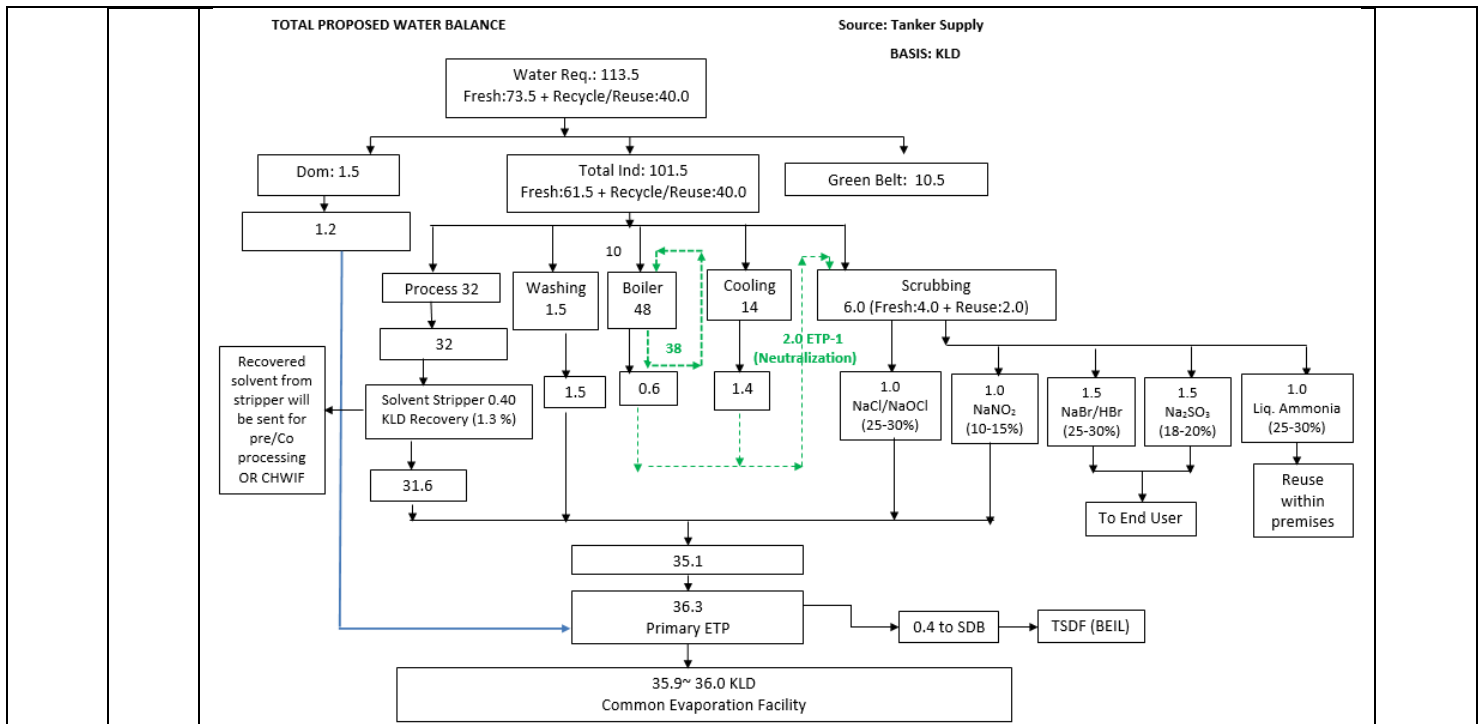
**Name of Common facility (CF) (For waste water treatment)**

- Common Evaporation Facility
- **Vide letter No.: BEIL/ANK/2021 Dated: 23/04/2021**

Membership of Common facility (CF) mentioning **total capacity, consented quantity, occupied capacity and spare capacity** and norms of acceptance of effluent from member units in-line with the direction given by GPCB vide Letter No. GPCB/P-1/8-G (5)/550706 dated 08/01/2020.

- Common Evaporation Facility,

**D-7** **Simplified water balance diagram with reuse / recycle of waste water**



**E AIR**

**E-1 Flue gas emission details**  
 No. of Boilers/TFH/Furnaces/DG sets etc. with capacities viz. TPH, Kcal/hr, MT/hr, KVA etc.  
 (In case of Project located within CPA/SPA, APCM shall be in line to the mechanism published in the MOEFCC's OM vide dated 31.10.2019)

Sr. No.	Stack attached to	Stack Height & Dia (Meter)	Type of Fuel	Fuel Consumption	Concentration of Pollutants	Air Pollution Control Measures (APCM)
1.	Boiler (2.0 TPH)	30/0.5	Natural Gas OR Bio Coal	4520 SCM/Day OR 9.0 MT/Day	PM < 150 mg/Nm <sup>3</sup> SO <sub>2</sub> < 100 ppm NO <sub>x</sub> < 50 ppm	MCS + Bag Filter & Water Scrubber & Adequate Stack height
2.	Thermic Fluid Heater (5 Lacs Kcal/hr.)		Natural Gas OR Bio Coal	1920 SCM/Day OR 4.0 MT/Day		MCS & Adequate Stack height
3.	DG Set 125 KVA (Stand by)	11/0.25	Diesel	15 lit/Hr.		Adequate Stack height

**E-3 Process gas i.e. Type of pollutant gases (SO<sub>2</sub>, HCl, NH<sub>3</sub>, Cl<sub>2</sub>, NO<sub>x</sub> etc.)**

Sr. No.	Specific Source of emission (Name of the Product & Process)	Stack/Vent Height/Dia. (meter)	Type of emission	Air Pollution Control Measures (APCM)
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	4	3-(3-Amino-4-methylamino-benzoyl)-pyridine-2-yl-amino)-propionic acid ethyl ester	Thionyl chloride	SO <sub>2</sub>	0.30	1.20 (Caustic + Water)	1.5	> 90	547.5 MT/Annum (18-20% Na <sub>2</sub> SO <sub>3</sub> )
	5	Etoricoxib	Ammonia gas	NH <sub>3</sub>	0.3	0.7 (Water)	1.0	> 90	365 MT/Annum (25-30% Liq. Ammonia)
<b>E-4</b>	<b>Fugitive emission</b> details with its mitigation measures.								
	<p>To mitigate fugitive emissions, the following steps would be taken:</p> <ul style="list-style-type: none"> <li>• Minimum number of flanges, joints and valves in pipelines</li> <li>• Selection / use of state-of-the art leak proof valves</li> <li>• Provision of mechanical seals in pumps</li> <li>• Proper preventive maintenance of roofs and seals for tanks</li> <li>• Monitoring and preventive maintenance of valves, flanges, joints, etc.</li> <li>• Fugitive emission over reactors, formulation areas, centrifuges, chemical loading, transfer area, shall be collected through hoods and ducts by induced draft and controlled by dust collector.</li> <li>• For particulate / dust emissions from the coal handling system: Water will be sprinkled to control particulate / dust emission from coal storage area.</li> <li>• Green belt will be developed along the plant premises</li> <li>• De-dusting system will be provided at solid product finishing area.</li> <li>• All transfer points will be fully closed.</li> <li>• Overflow system with return line to storage tank from batch tank will be provided to prevent hazardous material overflow.</li> </ul>								
<b>F</b>	<p><b>Hazardous waste</b> (As per the Hazardous and Other Wastes (Management and Transboundary Movement) Rules 2016. Note:</p> <ul style="list-style-type: none"> <li>➤ <b>Priorities for HW Management:</b> Pre-processing, Co-Processing, Reuse/Recycle within premises, Sell out to actual users having Rule-9 permission, TSDF/CHWIH.</li> <li>➤ <b>Quantification of hazardous waste shall be based on mass balance and calculations shall be incorporated in EMP details separately.</b></li> <li>➤ <b>Disposal to scrap vendors/vendors/traders is not allowed</b></li> </ul>								
<b>F-1</b>	<b>Hazardous waste management matrix</b>								
	<b>Sr. no</b>	<b>Type/Name of Hazardous waste</b>	<b>Specific Source of generation (Name of the Activity, Product etc.)</b>	<b>Category and Schedule as per HW Rules.</b>	<b>Quantity (MT/Annum)</b>	<b>Management of HW</b>			
	1	ETP Sludge	ETP	35.3/S CH-I	150.0	Collection, Storage, Transportation, disposal at nearest TSDF site.			
	2	Process Waste (Inorganic)	Mfg. Process 2-amino-5-( $\alpha$ -cyclopropyl carbonyl)-2-fluoro benzyl)-4,5,6,7-	28.1/S CH-I	1290.0				

		tetrahydrothieno[3,2-c]pyridine HCl				
3	Used Oil/ Spent Oil	Maintenance Activities	5.1/SC H-I	0.2	Collection, Storage, Transportation; reuse as lubricant or by selling to Authorized re- refiners.	
4	Discarded Containers / Bags/Liner s	Raw Material Supplier	33.1/SC H-I	100 (Nos. 4500 Contai ner) (Nos. 50000 Bags/ Liners)	Collection, Storage, Transportation; Decontamination and Reuse or Sale to Authorized Vendor.	
5	Distillation Residue	Mfg Process 2-Hydroxy methyl-3- methyl pyridine hydrochloride	20.3/S CH-I	257.0	Collection, Storage, Transportation & Disposal by send to pre/co processing unit (Cement Industries) OR by incineration at CHWIF.	
6	Process Waste (Organic)	Mfg. Process Roxithromycin	28.1/S CH-I	1135. 0		
7	Spent Carbon/ Hyflow	Mfg. Process Carbidopa	28.3/S CH-I	122.0		
8	Spent catalyst	Mfg. Process 4-((2- isopropoxyethoxy)meth yl)phenol	28.2/S CH-I	213.0		
9	Spent Solvent	Mfg. Process Carvedilol	28.6/S CH-I	*9310 .0	Collection, Storage, Handling recover & reused by subjecting to distillation assembly within the Premises.	
		Solvent Stripper		150.0	Collection, Storage, Transportation & sent to pre/co- processing (cement industries) or disposal by incineration at CHWIF	
10	Scrubbing Solution 25-30% NaCl/ NaOCl	From Scrubber Mfg. process Itopride Hydrochloride	28.1/S CH-I	365 KL	Collection, Storage & treated in ETP.	
11	Scrubbing Solution 10-15% NaNO <sub>2</sub>	From Scrubber Mfg. process Nicorandil	28.1/S CH-I	365 KL		

	1 2	Scrubbing Solution 25-30% Liq. Ammonia	From Scrubber Mfg. process Etoricoxib	28.1/S CH-I	365 KL	Collection, Storage & Reuse within premises. (Mfg Process: 2-methoxy-5-sulfamoylbenzoic acid:3600MT/Annunum)	
	1 3	Scrubbing Solution 25-30% HBr/NaBr	From Scrubber Mfg. process 3-(2-bromoacetyl)phenyl acetate or 2-(benzyl(methyl)amino-1-(3-hydroxyphenyl)ethane-1-one	28.1/S CH-I	547.5 KL	Collection, Storage, Transportation & Sell to End Users having permission under Rule-9.	
	1 4	Scrubbing Solution 18-20% Na <sub>2</sub> SO <sub>3</sub>	From Scrubber Mfg. process 3-(3-Amino-4-methylamino-benzoyl)-pyridine-2-yl-amino)-propionic acid ethyl ester	28.1/S CH-I	547.5 KL		
	1 5	Off Specification	Mfg. Process (Batch Failure)	28.4/S CH-I	1.0	Collection, Storage, Transportation & send to pre/co processing unit (Cement Industries) OR send to CHWIF.	
<b>*Justification for spent solvent generation &amp; Captive reused</b>							
		<b>Product Name</b>	<b>Solvent</b>	<b>Fresh Qty. Used MT/Day</b>	<b>Qty. Recovered MT/Day</b>	<b>Qty. Used MT/Day</b>	<b>Tank Storage (At a Time)</b>
		Carvedilol	IPA	0.33	8.00	8.33	15 KLX 1 Nos.
			Toluene	0.50	9.50	10.00	20 KL X 1 Nos.
			Cyclohexane	0.27	6.40	6.67	15 KL X 1 Nos.
			Ethyl acetate	0.07	1.60	1.67	10 KL X 1 Nos. 15 KL X 1 Nos.
		<b>Total MT/Day</b>		<b>1.17</b>	<b>25.50</b>	<b>26.67</b>	
		<b>Total MT/Year</b>		<b>427.05</b>	<b>9307.50 ~9310</b>	<b>9734.55</b>	
<b>F-2</b>	Membership details of <b>TSDF, CHWIF</b> etc. <b>(For HW management)</b>						
	Details of Membership letter no. & Date with spare capacity of the Common Facility. For Incineration: M/s. BEIL, Ankleshwar ( <b>Vide letter No.: BEIL/ANK/2021</b> Dated: 24/04/2021)						
<b>F-3</b>	Details of Non-Hazardous waste & its disposal <b>(MSW and others)</b>						
	<b>Sr. no.</b>	<b>Type/Name of Other wastes</b>	<b>Specific Source of generation (Name of the Activity, Product etc.)</b>	<b>Quantity (MT/Annunum)</b>	<b>Management of Wastes</b>		

	1	Fly Ash	Fuel (Bio-coal)	470	Collection, storage, transportation & send to Brick manufacturer OR farmer for agricultural purposes.			
<b>G Solvent management, VOC emissions etc.</b>								
<b>G-1</b> Brief Note on types of solvents, Details of Solvent recovery, % recovery, reuse of recovered Solvents etc.								
	<b>Sr. No.</b>	<b>Product Name</b>	<b>Solvent</b>	<b>Qty. Used MT/MT</b>	<b>Qty. Recovered MT/MT</b>	<b>Distillation Residue</b>	<b>Total Losses</b>	<b>Solvent Recovery %</b>
	1	Lisinopril	IPA	2.50	2.4	0.0625	0.1000	96
			Toluene	3.00	2.85	0.1050	0.1500	95
			Cyclohexane	2.00	1.92	0.0500	0.0800	96
			Ethyl acetate	0.50	0.48	0.0125	0.0200	96
<b>G-2 Brief Note on LDAR proposed:</b>								
	<p>The Following methodology to be adopted during LDAR study:</p> <ul style="list-style-type: none"> <li>➤ Identify the Chemical streams that must be monitored.</li> <li>➤ Types of components (pumps, valves, connectors, etc.) to be monitored</li> <li>➤ Frequency of monitoring.</li> <li>➤ Actions to be taken if a leak is detected.</li> <li>➤ Length of time in which an attempt to repair the leak must be performed.</li> <li>➤ Actions that must be taken if a leak cannot be repaired within guidelines.</li> <li>➤ Record-keeping and reporting requirements.</li> </ul>							
<b>G-3 VOC emission sources and its mitigation measures</b>								

- Leak Free Pumps for transfer of solvents.
- MSW Gaskets in solvent pipelines to prevent leakage from flanges.
- Minimum number of flanges, joints and valves in pipelines.
- To eliminate chances of leakages from glands of pumps, mechanical seal will be provided at all solvent pumps.
- All the rotating equipments like pumps will be installed with Mechanical Seals to arrest any sort of emissions.
- Condenser and scrubber post Reactor with cooling arrangement.
- Enclosures to chemical storage area, collection of emission from loading of raw materials in particular solvents through hoods and ducts by induced draft, and control by condenser to be ensured.
- In case the small spillage or leakage observed, first pour the china clay (vermiculate) on material and collect the contaminated china clay (vermiculate) and send to ETP.
- If the spillage is of inflammable liquid, switch off all the power supply in the area to prevent Electric Spark.
- Two condensers will install with cooling water and chilled brine to recover the solvent.
- Primary Condenser HE-01: Cooling Tower water or Chilled water at 5 °C will be used to condense the solvents depend on the vapor pressure at its operating conditions and the noncondensed vapors will be condensed in a Secondary Condenser.
- VOC Trap Condenser HE-02: Chilled Brine at -15 °C will be used to trap any traces of Solvent which is slipped from Secondary condenser.
- Emission of VOCs can be trapped from breathing and loading losses from storage tanks, venting of process vessels, leak from piping and equipment by means of hood connected with blower and send to condenser as shown in following diagram.
- Condensed VOCs will be send to spent solvent recovery plant.

**H SAFETY details**

**H-1 Details regarding storage of Hazardous chemicals  
(For tank storages only including spent acid and spent solvent tanks)**

S.N .	Name of chemical	Quantity (Nos.)	Total (Nos.)	Total Qty. to be store (KL)
<b>NON PESO – 5 Nos.</b>				
1	Sulphuric Acid	5 KL	1 Nos.	10 KL
2	Hydrochloric Acid	15 KL	1 Nos.	15 KL
3	Nitric Acid	5 KL	1 Nos.	5 KL
4	Liq. Ammonia	15 KL	1 Nos.	15 KL
5	Caustic	10 KL	1 Nos.	10 KL
<b>PESO – 8 Nos.</b>				
1	IPA	15 KL	1 Nos.	15 KL
2	Methanol	15 KL	1 Nos.	15 KL
3		20 KL	1 Nos.	20 KL
4	Toluene	20 KL	1 Nos.	20 KL
5	Cyclohexane	15 KL	1 Nos.	15 KL
6	Ethyl Acetate	15 KL	1 Nos.	15 KL
7		20 KL	1 Nos.	20 KL
8	Acetone	15 KL	1 Nos.	15 KL

**Brief note on storage of Hazardous chemicals in Tanks**

- PESO Tank- 8nos. (Underground)

➤ Non-PESO- 5 Nos

**Brief note on storage of Hazardous chemicals other than Tanks i.e. Drum, Barrels, Carboys, Bags etc.**

**Safety Measures for Drum Storage area:**

- ✓ Some chemicals will be received at plant in drums by road truck and stored in a separate drum storage area.
- ✓ FLP type light fittings will be provided.
- ✓ Proper ventilation will be provided in go down.
- ✓ Proper label and identification board /stickers will be provided in the storage area.
- ✓ Conductive drum pallets will be provided.
- ✓ Drum handling trolley / stackers/fork lift will be used for drum handling. Separate dispensing room with local exhaust and static earthing provision will be made.
- ✓ Materials will be stored as per its compatibility study and separate area will be made for flammable, corrosive and toxic chemical drums storage.
- ✓ Smoking and other spark, flame generating item will be banned from the Gate.

**Safety details of Hazardous Chemicals:**

Type of Hazardous Chemicals	Safety measures
PESO Tank	<p><b>Safety Measures for PESO Underground storage tank farm:</b></p> <ul style="list-style-type: none"> <li>✓ The underground vessels shall be placed within concrete or brick masonry pit with a gap of 1.0 meter between the walls of the pit and the vessel as well as in between the vessels.</li> <li>✓ The underground vessels shall be installed on a firm foundation and firmly secured to the foundation so as to prevent movement of floatation.</li> <li>✓ Class A Petroleum products will be received through road tanker and stored in u/g storage tank as per PESO Rule.</li> <li>✓ Tank farm will be constructed as per explosive department requirement and separation distance will be maintained.</li> <li>✓ The underground vessels covered by earth (Mound) shall be a designed to withstand external pressure due to load of the earth cover.               <ul style="list-style-type: none"> <li>○ Provided with external anti-corrosive coating or cathodic protection to prevent corrosion ;</li> <li>○ Covered by earth, sand or any other non-corrosive material free from abrasive particles likely to damage the anti-corrosive coating of the vessel-the thickness of the covering material above the top surface of the vessel shall not be less than 0.5 meter;</li> <li>○ Having the discharge level of the safety relief valves at least 2 meters above the top surface of the vessel, but in any case not less than 3 meters from the ground level;</li> <li>○ Fitted with the necessary piping's, fittings, valves and other mounting on top of vessel in such a manner that they can be operated and maintained without disturbing the earth cover. In case of above ground vessel with earth cover (mound), liquid outlet pipe at</li> </ul> </li> </ul>

			<p>the bottom may be allowed provided the control valve and emergency valve of this line is just outside the earth cover for the purpose of operation and maintenance from outside.</p> <ul style="list-style-type: none"> <li>✓ Static earthing provision will be made for road tanker as well as storage tank.</li> <li>✓ Flame arrestor with breather valve will be provided on vent line.</li> <li>✓ Road tanker unloading procedure will be prepared and implemented.</li> <li>✓ Fire load calculation will be done and as per fire load hydrant system will be provided as per NFPA std. and fire extinguishers will be provided as per fire load calculation.</li> <li>✓ Spark arrestor will be provided to all vehicles in side premises</li> <li>✓ Lightening arrestor will be provided on the top.</li> <li>✓ Flame proof type equipment and lighting will be provided.</li> <li>✓ Trained and experience operator will be employed for tank farm area.</li> <li>✓ NFPA label (hazard identification) capacity and content will be displayed on tanks</li> <li>✓ Solvents will be transferred by pump only in plant area and day tank will be provided. Overflow line will be return to the storage tank or Pump On-Off switch will be provided near day tank in plant.</li> <li>✓ Jumpers will be provided on solvent handling pipe line flanges &amp; Flexible SS hose will be used for road tanker unloading purpose and other temp. connection</li> </ul> <p><b>PESO Area Storage &amp; Handling Safety: (UNLOADING)</b></p> <ul style="list-style-type: none"> <li>✓ Ensure that the transfer of petroleum takes place only through electrically continuous sound hose having oil tight couplings at both ends.</li> <li>✓ Couplings of the hose at the discharge ends of the tank trucks as well as at the fill pipe end of the underground tank shall not be leaky.</li> <li>✓ Unloading operations should not commence without ensuring earthing of the tanker body to a proper earthing point. For this purpose, a proper earthing point shall be provided near filling points.</li> <li>✓ Before commencing unloading operations tanker should be parked in the retail outlet in such a manner that it can be taken out of the retail outlet immediately in case of emergency.</li> <li>✓ Dip pipe of the underground tank shall not be kept open during unloading operations.</li> <li>✓ The dealer, supervisors and pump attendants shall be trained in all aspects of safety in RO including the provisions of Petroleum Rules, 2002 in Chapter IV on Electric Installation, Rules 117 to 119,122,125 and conditions 6 to 12, 15,16,18 to 21of licence Form XIV for the RO's under the said Rules.</li> <li>✓ Before starting unloading of petroleum, it must be ensured that at least a safe distance of 3 M is kept clear of any kind of movement of other vehicles that come for</li> </ul>	
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			<p>fuelling and that there is no source of any spark in the area. In case of retail outlets that are in congested areas operations of fuelling automobiles in the retail outlet may be discontinued.</p> <ul style="list-style-type: none"> <li>✓ Do not use plastic hose pipes for unloading purposes.</li> <li>✓ Do not use hose pipe fitted with metallic pipe (bent pipe) at the discharge end.</li> <li>✓ Do not use Hose pipes not conforming to OISD 135.</li> <li>✓ Proper tightening of hose connections using screwed/cam lock couplings.</li> <li>✓ Make sure that there shall be no collection of leaked petroleum through hose pipe connection at tanker discharge faucet end in the plastic bucket kept on the ground below.</li> <li>✓ Provision of electrical earthing / bonding by means of flexible cable between tanker chassis and earth boss/fill pipe.</li> <li>✓ Proper training to the retail outlet staff regarding hazards associated with the petroleum road tanker decantation operation in the retail outlets.</li> </ul>	
		<p><b>Non PESO tank</b></p>	<p><b>Safety measures for Acid storage Tank:</b></p> <ul style="list-style-type: none"> <li>✓ Storage tank will be stored away from the process plant.</li> <li>✓ Tanker unloading procedure will be prepared and implemented.</li> <li>✓ Caution note and emergency handling procedure will be displayed at unloading area and trained all operators.</li> <li>✓ NFPA label will be provided.</li> <li>✓ Required PPEs like full body protection PVC apron, Hand gloves, gumboot, Respiratory mask etc. will be provided to operator.</li> <li>✓ Neutralizing agent will be kept ready for tackle any emergency spillage.</li> <li>✓ Safety shower, eye wash with quenching unit will be provided in acid storage area.</li> <li>✓ Material will be handled in close condition in pipe line.</li> <li>✓ Dyke wall will be provided to all storage tanks, collection pit with valve provision.</li> <li>✓ Double drain valve will provided.</li> <li>✓ Level gauge will be provided on all storage tanks.</li> <li>✓ Safety permit for loading unloading of hazardous material will be prepared and implemented. TREM CARD will be provided to all transporters and will be trained for transportation Emergency of Hazardous chemicals.</li> <li>✓ Fire hydrant system with jockey pump as per TAC norms will be installed.</li> </ul> <p><b>Safety Measures of Non PESO Tank</b></p> <ul style="list-style-type: none"> <li>✓ Leakage / spillage mitigation plan</li> <li>✓ Tank shall be rubber lined to prevent the corrosion</li> <li>✓ Dyke wall shall be provided for containment</li> <li>✓ Rubber type hand gloves and chemical splash goggles and full-face cartridge type mask and PVC apron shall be used while manual handling</li> <li>✓ Lime shall be readily available during leak to neutralize the spill material</li> <li>✓ Safety shower, eye wash with quenching unit will be</li> </ul>	

		<p>provided in acid storage area.</p> <ul style="list-style-type: none"> <li>✓ Material will be handled in close condition in pipe line.</li> <li>✓ Double drain valve will provided.</li> <li>✓ Level gauge will be provided on all storage tanks.</li> <li>✓ Fire hydrant system with jockey pump as per TAC norms will be installed</li> </ul>
	<b>Applicability of PESO: Will be obtained.</b>	
H-2	<b>Types of hazardous Processes involved and its safety measures: (Hydrogenation process, Sulphonation, Chlorination process, Bromination Reaction etc.)</b>	
	<b>Type of Process</b>	<b>Safety measures including Automation</b>
	<b>Hydrogenation</b>	<ul style="list-style-type: none"> <li>➤ DCS base process controls and operation of plant will be installed.</li> <li>➤ All electrical equipment's shall be installed as per Hazardous Area Classification.</li> <li>➤ <b>Total enclosed process system.</b></li> <li>➤ Instrument &amp; Plant Air System.</li> <li>➤ <b>Nitrogen blanketing in Hydrogenation reactor.</b></li> <li>➤ <b>Emergency dumping vessel will be provided during unforeseen circumstances.</b></li> <li>➤ Safety valve and Rupture disc provided on reactor.</li> <li>➤ Cooling, Chilling and alternate power arrangement have been made on reactor.</li> <li>➤ Process area and Hydrogen cylinder bank shall be far away as per standards practice.</li> <li>➤ PRV station with shut off valve, safety valve provision will be made for hydrogenation reaction safety.</li> <li>➤ Standard Operating procedure shall be followed during operation of Hydrogen Gas charging in to reactor and after completion of reaction Nitrogen purging will be done.</li> <li>➤ Flame arrestor will be provided on vent line of reactor and it will be extended above the roof level.</li> <li>➤ Safe Catalyst charging method will be adopted.</li> <li>➤ SOP will be displayed and operators will be trained for the same.</li> <li>➤ Static earthing and electric earthing (Double) will be provided.</li> <li>➤ Jumpers for static earthing on pipeline flanges of flammable chemical will be provided.</li> <li>➤ <b>Hydrogen gas detector will be installed for early detection of gas leak.</b></li> </ul>
	<b>Nitration</b>	<ul style="list-style-type: none"> <li>➤ SOP will be displayed for safe charging of Nitric acid for nitration process</li> <li>➤ Required PPEs like full body protection PVC apron, Hand gloves, gumboot, Respiratory mask etc. will be provided to operator at time of nitric acid charging.</li> <li>➤ Make sure the absorber unit (two stage Alkali scrubber) will be working and capable of handling vented NO2 fumes.</li> <li>➤ Neutralizing agent will be kept ready for tackle any emergency spillage.</li> <li>➤ Safety Shower and eye wash will be provided near process</li> </ul>

		<p>area.</p> <ul style="list-style-type: none"> <li>➤ Total close process will be adopted (from storage tank to measured vessel &amp; then to reactor) for Nitric Acid charging.</li> <li>➤ Caution note and emergency first aid will be displayed for the same to all employees.</li> <li>➤ First Aid Boxes will be available in process area.</li> <li>➤ Prevention measures for runaway reaction of nitration reaction.</li> <li>➤ Instrumentation control –Interlock, Rotameter, DCS, Level alarms</li> <li>➤ TIC –Temp Indicator Controller- of jacketed reactor (Gradually Charging material to maintain rate of rise of temperature,- Temperature sensor – Chilling Plant, Temp Range of Reaction: 25 to 30 degree centigrade Pressure : Atmospheric)</li> <li>➤ Emergency control measures:</li> <li>➤ Provision of Dumping vessel of the contents of the nitrator underneath reactor; the contents will be neutralized (by Alkali) in catch point. It will be sent to CF (Co-Processing/CHWIF/TSDF).</li> </ul>
	<b>Bromination</b>	<ul style="list-style-type: none"> <li>✓ <b>All end nozzles in bromine charging hose will be blinded after use.</b></li> <li>✓ <b>Charging of bromine will be done when reactor is in vacuum and POP coated funnel will be used during charging.</b></li> <li>✓ <b>Excess bromine will be neutralize or discharged by adding Sodium Bisulfite.</b></li> <li>✓ <b>Make sure the absorber unit (scrubber) is working and capable of handling vented bromine fumes.</b></li> <li>✓ Structure of bromine bottle area will be periodically inspected to ensure stability.</li> <li>✓ Personnel employed with bromine handling are made aware of potential hazards of bromine and of appropriate first-aid measure.</li> <li>✓ Exhaust hood connected with alkali scrubber and ventilation system will be available. Exhaust hood has been provided to maintain to concentration of bromine vapor well below PEL.</li> <li>✓ Work instructions for bromine charging will be displayed in local language/Hindi.</li> <li>✓ Safety shower and eye-wash fountains will be available nearby handling and charging facility. The location of such item will be inspected and tested at fixed interval to make sure that it is in good condition.</li> <li>✓ Hypo solution, lime water slurry or soda ash solutions will be available so as to pour them over a liquid bromine spill on the floor. The bromine and neutralizer is then washed to the sump with cold water hose.</li> <li>✓ Personal Hygiene – the following personal protective equipment will be used.</li> <li>✓ Chemical safety goggles, face shields, SCBA sets, Aprons, rubber gloves, etc.</li> <li>✓ Only trained employees handled bromine charging. Training will be given to employees for bromine handling and charging.</li> </ul>
	<b>Sulphonation &amp; Chlorination (Only Through</b>	<ul style="list-style-type: none"> <li>➤ <b>Provision of Safety valve &amp; rapture disc on reactor.</b></li> <li>➤ <b>Provision of auto dumping vessel.</b></li> <li>➤ Required PPEs like full body protection PVC apron, Hand</li> </ul>

		<p><b>Thionyl Chloride)</b></p>	<p>gloves, gumboot, Respiratory mask etc. will be provided to operator.</p> <ul style="list-style-type: none"> <li>➤ <b>To avoid runaway reaction, TC charging will be done gradually &amp; slowly to avoid runaway reaction, TC charging will be done gradually &amp; slowly.</b></li> <li>➤ <b>Charging will be done only through closed line and system. Scrubber attached with closed system.</b></li> <li>➤ <b>Make sure the absorber unit (two stage Alkali scrubber) is working and capable of handling vented SO<sub>2</sub> / HCl fumes.</b></li> <li>➤ <b>Neutralizing agent will be kept ready for tackle any emergency spillage.</b></li> <li>➤ Safety Shower and eye wash will be provided near process area.</li> <li>➤ For Thionyl Chloride evacuate area in down wind direction up to 0.3 km ( 300 meter) in small spillage.</li> <li>➤ Emergency siren and wind sock will be provided.</li> <li>➤ Tele Communication system and mobile phone will be used in case of emergency situations for communication.</li> <li>➤ Total close process will be adopted for Thionyl chloride charging.</li> <li>➤ Caution note and emergency first aid will be displayed and train for the same to all employees.</li> <li>➤ First Aid Boxes will be available in process area.</li> <li>➤ Emergency organization and team will be prepared as per On site-Off site emergency planning.</li> <li>➤ Emergency team will be prepared and trained for scenario base emergency. Like Toxic control team, Fire control team, First aid team, communication and general administration team, Medical team etc.</li> <li>➤ Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.</li> <li>➤ Use water spray to reduce vapors; do not put water directly on leak, spill area or inside container. Keep combustibles (wood, paper, oil, etc.) away from spilled material.</li> <li>➤ Cover with DRY earth, DRY sand or other non-combustible material followed with plastic sheet to minimize spreading or contact with rain.</li> </ul>	
		<p><b>Chlorination Process safety measures: (Chlorine Gas)</b></p>	<ul style="list-style-type: none"> <li>➤ Chlorine Emergency Kit will be procured and kept ready at process site.</li> <li>➤ Chlorine Hood with blower will be provided with scrubbing arrangement.</li> <li>➤ SCBA sets will be kept ready at site.</li> <li>➤ Safety Shower and eye wash will be provided in process area.</li> <li>➤ Chlorine absorption system will be provided. In case of chlorine leakage in chlorine shed it will be suck through blower and it will be scrubbed in Caustic scrubber.</li> <li>➤ Emergency siren and wind sock will be provided.</li> <li>➤ Tele Communication system and mobile phone will be used in case of emergency situations for communication.</li> <li>➤ First Aid Boxes and Occupational health centre will be made at site.</li> <li>➤ Emergency organization and team will be prepared as per On site-Off site emergency planning.</li> <li>➤ Full body protection suite and other PPEs will be kept ready at site.</li> </ul>	

		<ul style="list-style-type: none"> <li>➤ Emergency team will be prepared and trained for scenario base emergency. Like Toxic control team, Fire control team, First aid team, Communication and general administration team, Medical team etc.</li> </ul> <p><b>Evacuate the area in down wind direction</b></p> <ul style="list-style-type: none"> <li>✓ For Chlorine evacuate area in down wind direction up to 0.4 km (400 meter) in small spillage and in case of large spillage, evacuate the area in down wind direction 3.5 kms (3500 meters).</li> <li>✓ SOP will be prepared for safe charging of Chlorine tonners.</li> <li>✓ Tonner handling EOT crane will be installed in Chlorine shed area for safe tonner handling.</li> <li>✓ Safety Valve will be provided on chlorine header line and it will be connected to caustic scrubber.</li> <li>✓ Safety valve will be provided on vaporizer header and outlet of safety valve connected to scrubber.</li> <li>✓ Flow and temperature controllers will be provided on process line.</li> <li>✓ Chlorine Gas detectors will be provided in process area.</li> </ul>
<b>H-3 Details of Fire Load Calculation</b>		
	Total Plot Area:	14000.0Sq.mt
	Area utilized for plant activity:	770.0 Sq. m.
	Area utilized for Hazardous Chemicals Storage:	2867 Sq. m.
	Number of Floors Area:	G+2
	Water requirement for firefighting in KLD :	103040Lit.
	Water storage tank provided for firefighting in KLD:	5,00,000 Lit.
	Details of Hydrant Pumps:	Fire water Pump will be available. We will have 01 No's of electrical fire water Pump located at pump house having capacity 4550.0 litres/min and 01 No's of Diesel pump having capacity 4550.0 litres/min. Apart from this we have 01 Nos Jockey Pumps of capacity 1080.0 litres/min which maintains the Fire water Header Pressure at 8.0 kg/cm <sup>2</sup> .
	Nearest Fire Station :	Fire Station : Panoli GIDC Fire Station (Distance from project site: 2.33 km)
	Applicability of Off Site Emergency Plan:	--
<b>H-4</b>	<b>Details of Fire NOC/Certificate:</b>	
	<b>Will be Applied</b>	
<b>H-5</b>	<b>Details of Occupational Health Centre (OHC):</b>	
	Number of permanent Employee :	15
	Number of Contractual person/Labour :	20
	Area provided for OHC:	60.0
	Number of First Aid Boxes :	10
	Nearest General Hospital :	Dahej General hospital

		Name of Antidotes to be store in plant :	Artificial respiration, First Aid, etc.	
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- During meeting, Committee noted that PP presented revised product profile with discontinue product namely 5-(4'-Bromomethy1-1,11-biphenyl-2-y1)-1-triphenylmethyl-1H-tetrazole and 2-(1-cyano-3-methyl-butyl)-malonic acid diethyl ester, from where cyanide effluent stream generated. Due to proposal of 271 API and API intermediate products in one group proposed in product profile, there is no change in Water, Air and Hazardous waste management details. PP submitted revised PFR after removal of products from product list.
- Committee found reply submitted by PP was satisfactory.
- **After detailed discussion, Committee unanimously decided to recommend the project to SEIAA, Gujarat for grant of Environment Clearance with the following specific condition:**

**SPECIFIC CONDITIONS:**

1. Project Proponent (PP) shall comply conditions of any subsequent amendment or expansion or change in product mix, after the 30th September 2020, considered as per the provisions in force at that time as mentioned in the Notification vide S.O. 1223 (E) dated 27/03/2020 and its subsequent amendment.
2. PP shall carry out proposed project/activities in respect of Active Pharmaceutical Ingredients (API) as per the amended EIA Notification vide S.O. 1223 (E) dated 27/03/2020 and any subsequent amendments.
3. PP shall submit six monthly compliance report of Environmental Clearance without fail and the same shall be critically assessed by the regulatory authority.
4. PP shall not manufacture more that three-four(3-4) products from product list, at a given point of time as per area adequacy submitted by PP..
5. Unit shall obtain all required permissions from the Narcotics Control Bureau for usage of Acetic Anhydride & any such chemicals as raw material, its storage and handling.
6. Close loop solvent recovery system with adequate condenser system shall be provided to recover solvent vapours in such a manner that recovery shall be maximum and recovered solvent shall be reused in the process within premises.
7. Leak Detection and Repair (LDAR) program shall be prepared and implemented as per the CPCB guidelines. LDAR Logbooks shall be maintained.
8. All measures shall be taken to prevent soil and ground water contamination.
9. Unit shall install CEMS [Continuous Emission Monitoring System] in line to CPCB directions to all SPCB vide letter no. B-29016/04/06PCI-1/5401 dated 05/02/2014 for effluent discharge and air emission as per pollutants discharge/emission from respective project and an arrangement shall also be done for reflecting the online monitoring results on the company's server, which can be assessable by the GPCB/CPCB on real time basis. [For Small/Large/Medium (Red Category) & Whichever (Air emission &

Effluent discharge) is applicable].

10. PP shall not dig bore well within premises without permission from CGWA authority and shall procure water from outside market through private water tanker supplier only.

### **WATER**

11. Total water requirement for the project shall not exceed 113.50 KLD. Unit shall reuse 40 KLD of treated industrial effluent within premises. Hence, fresh water requirement shall not exceed 73.50 KLD and it shall be met through private water tanker supply only. Prior permission from concerned authority shall be obtained for withdrawal of water.
12. The industrial effluent generation from the project shall not exceed 41.50 KLD.
13. 32 KLD, Industrial effluent from process shall be treated in solvent stripper and then treated effluent from solvent stripper along with 3.5 KLD effluent from washing and scrubber shall be treated in ETP consist of primary ETP units. Then treated effluent shall be sent to CMEE of M/s BEIL through GPS fitted tanker for evaporation.
14. 2 KLD, effluent from utility shall be reused back in for make up water in scrubber after pH adjustment.
15. 4 KLD exhausted scrubbing media shall be partly sold to end users having rule- 9 permission and partly shall be reused back in process within premises as per Hazardous Waste Rules'2016.
16. Unit shall send wastewater to CMEE only after complying with norms prescribed by GPCB and ensuring content of effluent for COD/VOC so as not to get air borne during evaporation in order to achieve no adverse impacts on Environment and Human Health.
17. Domestic wastewater generation shall not exceed 1.20 KL/day for proposed project and it shall be treated in ETP. It shall not be disposed off through soak pit/ septic tank.

### **AIR**

18. Unit shall not exceed fuel consumption and provide APCM and Stack height as mentioned in flue gas matrix.
19. Unit shall provide APCM and stack height as mentioned in process gas matrix.
20. PP shall use approved fuels only as fuel in boilers.

### **HAZARDOUS & SOLID WASTE**

4. All hazardous solid waste shall be managed as mentioned in hazardous waste matrix.
5. The unit shall submit the list of authorized end users of hazardous wastes along with MoU signed with them at least two months in advance prior to the commencement of production. In the absence of potential buyers of these items, the unit shall restrict the production of the respective items.

### **GREENBELT AREA**

6. The PP shall develop green belt within premises (4620 Sq m i.e. 33 % of the total plot area) as per the

undertaking submitted before SEAC. Green belt shall be developed with native plant species that are significant and used for the pollution abatement as per the CPCB guidelines. It shall be implemented within 3 years of operation phase in consultation with GPCB.

**7. Safety & Health:**

- a) PP shall obtain PESO permission for the storage and handling of hazardous chemicals.
- b) PP shall provide Occupational Health Centre (OHC) as per the provisions under the Gujarat Factories Rule 68-U.
- c) PP shall obtain fire safety certificate / Fire No-Objection certificate (NOC) from the concern authority as per the prevailing Rules / Gujarat Fire Prevention and Life Safety Measures Act, 2016.
- d) Unit shall adopt functional operations/process automation system including emergency response to eliminate risk associated with the hazardous processes.
- e) PP shall carry out mock drill within the premises as per the prevailing guidelines of safety and display proper evacuation plan in the manufacturing area in case of any emergency or accident.
- f) PP shall install adequate fire hydrant system with foam trolley attachment within premises and separate storage of water for the same shall be ensured by PP.
- g) PP shall take all the necessary steps for control of storage hazards within premises ensuring incompatibility of storage raw material and ensure the storage keeping safe distance as per the prevailing guidelines of the concerned authority.
- h) PP shall take all the necessary steps for human safety within premises to ensure that no any harm is caused to any worker/employee or labour within premises.
- i) Flame proof electrical fittings shall be provided in the plant premises, wherever applicable.
- j) Unit shall never store drum/barrels/carboys of incompatible material/chemical together.
- k) Unit shall provide effective Isolation for Process area and storage of hazardous chemicals.
- l) Unit shall provide safety valve & rupture disc to the Hydrogenation vessel.
- m) Unit shall provide effective fire hydrants, water monitors & foam application system at solvent storage tank farm area. Unit shall provide adequate safety system such as water sprinklers, water curtains, foam pouring system etc. to restrict cascade fire emergency in solvent tank farm.
- n) Unit shall Store Bromine Bottle in cool dry separate area, out of direct sunlight.
- o) Unit shall provide chlorine leakage control emergency kit and FRP hood with scrubber system for chlorine safety.
- p) Unit shall provide safety valve and rapture disc, as well as auto dump or auto quench/, suppress system for nitration vessel safety.

11.	SIA/GJ/IND2/205560/2021	<b>M/s. Gujarat Amines</b>  Plot No.- 2107, Panoli Industrial Estate– 394116, Tal- Ankleshwer, Dist: Bharuch	EC-Reconsideration
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Category of the unit: **5(f)**

**Project status: Expansion**

- Project proponent (PP) submitted online application vide no. SIA/GJ/IND2/205560/2021 on dated 27/03/2021 for obtaining Environmental Clearance.
- Project proponent has submitted Form – 1, Pre-Feasibility Report & Environment Management Plan as per Notification issued by MoEF&CC vide S.O. 1223(E) dated 27th March, 2020 regarding consideration of proposals or activities in respect of Active Pharmaceuticals Ingredients (API) as B2 category.
- This is an existing unit and proposes for expansion in manufacturing of synthetic organic chemicals [API and API Intermediates] as tabulated below,

Sr. No.	NAME OF PRODUCT	API Or Intermediate	Cas No.	Quantity MT/Month			Said API is used for/End Use of said API
				Existing	Proposed	Total	
Existing							
1.	Glycerol monostearate	-	123-94-4	50	-	50	Food additive
2.	Butyl Stearate	-	123-95-5				Plastic additive
3.	Sorbitan Mono Sterate	-	1338-41-6				Food additive
4.	Calcium propionate	-	4075-81-4				Food additive
5.	Calcium Acetate	-	62-54-4				Food additive
6.	Zinc Stearate	-	557-05-1				Plastic additive
7.	Phenyl Acetone	Intermediates	103-79-7	25	-	25	Amphetamine/ increase your ability to pay attention, stay focused on an activity, and control behavior problems

8.	Benzyl Chloride	Intermediates	100-44-7				To manufacture benzyl cyanide which is used to manufacture 2-phenylacetamide Penicillin G/ to treat patient with epilepsy Used as antibiotic
9.	Calcium Stearate	-	1592-23-0				Plastic additive
10.	N-Butyl Bromide	Intermediates	2398-37-0				Hydro Quise Butyl Bromide/ To treat crampy abdominal pain, esophageal spasms, renal colic, and bladder spasms
11.	Magnesium Stearate	-	557-04-0				Plastic additive
Proposed							
12.	Atorvastatin Calcium	API	134523-00-5				API/ improve Cholesterol level and fats
13.	Tetra-butyl 2-((4R,6R)-6-(2-aminoethyl)-2,2-dimethyl-1,3-dioxan-4-yl)acetate	Intermediate	125995-13-3				Atorvastatin Calcium /Improve Cholesterol level and fats
14.	Tert-butyl 2-((4R,6R)-6-(2-(2-(4-fluorophenyl)-5-isopropyl-3-phenyl-4-(phenylcarbamoyl)-1H-pyrrol-1-yl)ethyl)-2,2-dimethyl-1,3-dioxan-4-yl)acetate	Intermediate	125971-95-1	-	25		
15.	Torsemide	API	56211-40-6				
16.	2-aminobenzenesulfonic acid	Intermediate	88-21-1				Torsemide /Heart failure, liver disease, and kidney disease

17.	4-chloropyridine-3-sulfonamide	Intermediate	18368-64-4				
18.	4-(m-tolylamino)pyridine-3-sulfonamide	Intermediate	72811-73-5				
19.	Bisoprolol Fumarate	API	66722-44-9			API/High blood pressure, heart attacks, and kidney problems	
20.	4-((2-isopropoxyethoxy)methyl)phenol	Intermediate	177034-57-0			Bisoprolol Fumarate /High blood pressure, heart attacks, and kidney problems	
21.	2-((4-((2-isopropoxyethoxy)methyl)phenoxy)methyl)oxirane	Intermediate	66722-57-4				
22.	1-(4-((2-isopropoxyethoxy)methyl)phenoxy)-3-(isopropylamino)propan-2-ol	Intermediate	5790-46-5				
23.	Artesunate	API	88495-63-0				Artesunate /Antimalarial
24.	Lumefantrine	API	82186-77-4			API /treat non-severe malaria. This medication is used only to treat malaria	
25.	2-chloro-1-(2,7-dichloro-9H-fluoren-4-yl)ethane-1-ol	Intermediate	131023-37-5			Lumefantrine /treat non-severe malaria. This medication is used only to treat malaria	
26.	2-chloro-1-(2,7-dichloro-9H-fluoren-4-yl)ethane-1-ol	Intermediate	131023-37-5				
27.	2-(dibutylamino)-1-(2,7-dichloro-9H-fluoren-4-yl)ethane-1-ol	Intermediate	69759-61-1				
28.	Dabigatran	API	211915-06-9			API /prevent blood clots	

29.	(4-Cyano-phenylamino)acetic acid	Intermediate	42288-26-6				
30.	3-({2-[(4-cyano-phenylamino)-methyl]-1-methyl-1H-benzimidazole-5-carbonyl}-pyridine-2-yl-amino)-propionic acid ethyl ester methane sulfoate	Intermediate	211915-84-3				
31.	3-({2-[(4-carbamimidoyl-phenylamino)-methyl]-1-methyl-1H-benzimidazole-5-carbonyl}-pyridine-2-yl-amino)-propionic acid ethyl ester hydrogen chloride	Intermediate	7647-01-0				Dabigatran /prevent blood clots
32.	3-[(2-[(4-(Hexyloxycarbonylamino-imino-methyl)-phenylamino)-methyl]-1-methyl-1H-benzimidazole-5-carbonyl)-pyridine-2-yl-amino]-propionic acid ethyl ester	Intermediate	211915-06-9				
33.	Strontium Renelate	API	135459-90-4				API /Osteoporosis
34.	Diethyl 3-oxopentanedioate	Intermediate	105-50-0				
35.	Ethyl 5-amino-4-cyano-3-(2-ethoxy-2-oxoethyl)thiophene-2-carboxylate	Intermediate	58168-20-0				
36.	diethyl 2,2'-((3-cyano-4-(2-ethoxy-2-oxoethyl)-5-(ethoxycarbonyl)thiophen-2-yl)azanediyl)diacetate	Intermediate	58194-26-6				Strontium Renelate / Osteoporosis

37.	PhenylephrineHCl	API	61-76-7				API /stuffy nose, sinus, and ear symptoms
38.	3-acetylphenyl acetate	Intermediate	2454-35-5				PhenylephrineHCl /stuffy nose, sinus, and ear symptoms
39.	3-(2-bromoacetyl)phenyl acetate & 2-(benzyl(methyl)amino-1-(3-hydroxyphenyl)ethane-1-one	Intermediate	38396-89-3 & 71786-67-9				
40.	3-(1-hydroxy-2-(methylamino)ethyl)phenol	Intermediate	532-38-7				
41.	AzilsartanKamedoxomil	API	863031-21-4			API /high blood pressure	
42.	Methyl(E)-2-ethoxy-1-((2'-(N'-(ethoxycarbonyl)oxy)carbonyl)-[1,1-biphenyl]-4-yl)methyl)-1H-benzo[d]imidazole-7-carboxylate	Intermediate	147403-65-4				AzilsartanKamedoxomil /high blood pressure
43.	Methyl 2-ethoxy-1-((2'-(5-oxo-4,5-dihydro-1,2,4-oxadiazol-3-yl)-[1,1-biphenyl]-4-yl)methyl)-1H-benzo[d]imidazole-7-carboxylate	Intermediate	147403-52-9				
44.	Methyl 2-ethoxy-1-((2'-(5-oxo-4,5-dihydro-1,2,4-oxadiazol-3-yl)-[1,1-biphenyl]-4-yl)methyl)-1H-benzo[d]imidazole-7-carboxylic acid	Intermediate	147403-52-9				

45.	(5-methyl-2-oxo-1,3-dioxol-4-yl)methyl 2-ethoxy-1-((2'-(5-oxo-4,5-dihydro-1,2,4-oxadiazol-3-yl)-[1,1-biphenyl]-4-yl)methyl)-1H-benzo[d]imidazole-7-carboxylate	Intermediate	863031-21-4				
46.	Rosuvastatin Calcium	API	147098-20-2				API/ Lowers "bad" cholesterol
47.	N-[5-(bromo methyl)-4-(4-fluoro phenyl)-6-isopropyl pyrimidin-2-yl]-N-methyl methane sulfonamide.TPP salt	Intermediate	799842-07-2				Rosuvastatin Calcium/ Lowers "bad" cholesterol
48.	Tert-butyl 2-((4R,6S)-6-((E)-2-(4-(4-fluorophenyl)-6-isopropyl-2-(N-methylmethylsulfonamido) pyrimidin-5-yl)vinyl)-2,2-dimethyl-1,3-dioxan-4-yl)acetate	Intermediate	289042-12-2				
49.	monomethylamine salt of rosuvastatin	Intermediate	287714-41-4				
50.	Levosulpiride	API	23672-07-3				
51.	2-methoxybenzoic acid	Intermediate	579-75-9				Levosulpiride/symptoms of schizophrenia, anxiety disorders, and dysthymia
52.	2-methoxy-5-sulfamoylbenzoic acid	Intermediate	22117-85-7				
53.	Methyl 1,2-methoxy-5-sulfamoylbenzoate	Intermediate	33045-52-2				
54.	S-1-Ethyl-2-aminomethyl pyrrolidine	Intermediate	22795-99-9				
55.	Telmisartan	API	144701-48-4				API/high blood pressure

56.	Methyl 4-butyramido-3-methylbenzoate	Intermediate	301533-59-5				
57.	Methyl 4-butyramido-3-methyl-5-nitrobenzoate	Intermediate	152628-01-8				
58.	Methyl 7-methyl-2-propyl-1H-benzo[d]imidazole-5-carboxylate	Intermediate	152628-00-7				Telmisartan/high blood pressure
59.	7-methyl-2-propyl-1H-benzo[d]imidazole-5-carboxylic acid	Intermediate	152628-00-7				
60.	Quetiapine Hemifumarate	API	111974-69-7				API /schizophrenia, bipolar disorder
61.	2-nitro thio phenol	Intermediate	4875-10-9				
62.	Phenyl-2-(phenylthio) amine	Intermediate	1134-94-7				Quetiapine Hemifumarate /schizophrenia, bipolar disorder
63.	Phenyl-2-(phenylthio)-phenyl carbonate	Intermediate	111974-73-3				
64.	Dibenzo[b,f]thiazepin-1,1(1OH)-one	Intermediate	3159-07-7				
65.	Carvedilol	API	72956-09-3				API/treat high blood pressure
66.	1,2,3,4-tetrahydrocarbazol-4-one	Intermediate	15128-52-6				
67.	4-hydroxy-9-(H) carbazole	Intermediate	52602-39-8				Carvedilol/treat high blood pressure
68.	4-oxyranylmethoxy-9-(H)-carbazole	Intermediate	51997-51-4				
69.	Clopidogrel Bisulphate	API	120202-66-6				API/treat new/worsening chest pain
70.	2-(thiophen-2-yl)ethanol	Intermediate	5402-55-1				Clopidogrel Bisulphate/ treat new/worsening

71.	2-(Thiophen-2-yl)ethyl 4-methylbenzenesulfonate	Intermediate	40412-06-4				chest pain
72.	(S)-Methyl 2-(2-chlorophenyl)-2-((2-(thiophen-2-yl)ethyl)amino)acetate hydrochloride	Intermediate	141109-19-5				
73.	(S)-Methyl 2-(2-chlorophenyl)-2-(6,7-dihydrothieno [3,2-c]pyridin-5(4H)-yl)acetate sulfate	Intermediate	120202-71-3				
74.	Pregabalin	API	148553-50-8				API/ treat neuropathic pain and fibromyalgia.
75.	2-(3-Methylbutylidene)-melonic acid diethyl ester	Intermediate	86369-44-0				
76.	2-(1-cyan0-3-methylbutyl)-malonic acid diethyl ester	Intermediate	186038-82-4				Pregabalin/ treat neuropathic pain and fibromyalgia.
77.	3-aminomethyl 5-methyl hexanoic acid	Intermediate	148553-50-8				
78.	s(+)-Pregabalinmandalate salt	Intermediate	4118-51-8				
79.	Levocetirizine Dihydrochloride	API	130018-77-8				API/relieve allergy symptoms
80.	1-Methanesulfonyl-4-methylbenzene,( 2-chloro-ethyl)-chloromethylamine	Intermediate	1671-18-7				LevocetirizineDihydrochloride/ relieve allergy symptoms
81.	1-[(4-Chloro-phenyl)-phenyl-methyl]-4-(toluene-4-sulfonyl)-piperazine	Intermediate	163837-56-7				



82.	1-[(4-Chloro-phenyl)-phenyl -methyl]-piperazine	Intermediate	38212-33-8				
83.	1-{4-[(4-Chloro-phenyl)-phenyl -methyl]-piperazin-1-yl}-ethanol	Intermediate	109806-71-5				
84.	Moxifloxacin HCl	API	186826-86-8			API/ Antibiotic	
85.	5H-pyrrolo [3,4-b]pyridine-5,7(6H)-dione	Intermediate	4664-00-0			Moxifloxacin HCl/ Antibiotic	
86.	8-benzyl-7,9-dione-2,8-diazabicyclo[4.3.0]nonane	Intermediate	NA				
87.	Cis-8-benzyl-7,9-dione-2,8-diazabicyclo[4.3.0]nonane	Intermediate	NA				
88.	(4aS,7aS)-Octahydro-1H-pyrrol[3,4-b]pyridine	Intermediate	151213-40-0				
89.	Amisulpiride	API	53583-79-2				API/Antipsychotic
90.	Topiramate	API	97240-79-4			API/Control seizures (epilepsy).	
91.	2, 3,4, 5-Bis-O-(1-MethylEthylidene)-B-D-fructopyranose	Intermediate	20880-92-6			Topiramate /Control seizures (epilepsy)	
92.	Levitiracetam	API	102767-28-2			API/ Antiepileptic	
93.	Azithromycin dihydrate	API	117772-70-0			API/Skin infections, ear infections, eye infections	
94.	Irbesartan	API	138402-11-6			API/Antihypertensive	

95.	4'-(2-Butyl-4-oxo-1,3-diazaspiro[4,4]non-1-ene-3-yl methyl)biphenyl-2-carbonitrile	Intermediate	138401-24-8				Irbesartan / Antihypertensive
96.	2-n-butyl-4-spiro cyclopenetrane-1-((2'-triphenyl methyl tetrazol-5-yl) biphenyl-4-yl methyl)-2-imidazole	Intermediate	124751-00-4				Irbesartan / Antihypertensive
97.	Flurbiprofen	API	5104-49-4				API/Painkiller
98.	Cloxacillin Sodium	API	7081-44-9				API/Antibiotic
99.	Terbinafine Hydrochloride	API	78628-80-5				API/Antifungal
100.	Terbinafine	Intermediate	91161-71-6				Terbinafine Hydrochloride/ Antifungal
101.	Azithromycin	API	83905-01-5				API/Antibiotic
102.	Roxithromycin	API	80214-83-1				API/Antibiotic
103.	Tramadol Hydrochloride	API	36282-47-0				API/Painkiller
104.	Ornidazole	API	16773-42-5				API/Antiprotozoal
105.	Des Loratadine	API	100643-71-8				API/Anti-Allergic
106.	Fexofenadine Hydrochloride	API	153439-40-8				API /Anti-Allergic
107.	4-(4-(hydroxydiphenylmethyl)piperidin-1-yl)-1-(4-(2-methyl-3-oxobutan-2-yl)phenyl)butan)-1-one	Intermediate	153439-40-8				Fexofenadine Hydrochloride/ Anti-Allergic
108.	Sertraline Hydrochloride	API	79559-97-0				API/Antidepressant

109.	(4-(3,4-dichlorophenyl)-1,2,3,4-tetrahydro-naphthalen-1-ylidene)-methylamine	Intermediate	1198084-29-5				Sertraline Hydrochloride /Antidepressant
110.	Sildenafil	API	160970-54-7				API/ to treat signs and symptoms of an enlarged prostate gland
111.	Clarithromycin	API	81103-11-9				API/Antibiotic
112.	Lisinopril	API	83915-83-7				API/Antihypertensive
113.	Arteether	API	75887-54-6				API/Antimalarial
114.	Gabapentin	API	60142-96-3				API/ Antidepressant
115.	(1-aminomethylcyclohexyl)-acetic acid	Intermediate	60142-95-2				Gabapentin / Antidepressant
116.	Hydrochlorothiazide	API	58-93-5				API /Antihypertensive
117.	Atenolol	API	29122-68-7				API/Antihypertensive
118.	Domperidone	API	57808-66-9				API/Antiemetic
119.	Amoxicillin Trihydrate	API	61336-70-7				API/Antibiotic
120.	Venlafaxine Hydrochloride	API	99300-78-4				API/Antidepressant
121.	Donepezil Hydrochloride	API	120011-70-3				API/Antidepressant
122.	Celecoxib	API	169590-42-5				API /pain or inflammation
123.	4,4,4-trifluoro-1-(4-methyl phenyl) butano-1,3-dione	Intermediate	720-94-5				Celecoxib/pain or inflammation
124.	Pantoprazole Sodium	API	138786-67-1				API/stomach and esophagus problems

125.	(2-(chloromethyl)-3,4-dimethoxypyridine hydrochloride	Intermediate	72830-09-2				
126.	Panto-I (Sulphide)	Intermediate	139-66-2				Pantoprazole Sodium /stomach and esophagus problems  API/ to treat type 2 diabetes  API/ Treatment of hypertention  OlmesartanMedoximil/ Treatment of hypertention  API/ treat vitamin B12 deficiency  API/used in a condition where there is a lot of thick phlegm in the airways  Bromhexine HCl/used in a condition where there is a lot of thick phlegm in the airways  API/ antimicrobial  API/to treat broad or fish tapeworm, dwarf tapeworm, and beef tapeworm infections  Omeprazole/ to treat and prevent the return of ulcers caused by a certain type of bacteria  Erythromycin
127.	Panto-2 (Sulphoxide) (5- (difluoromethoxy)-2- {[3,4-dimethoxypyridin-2-yl)methyl] thio}-1H2 benzimidazole	Intermediate	102625-64-9				
128.	Gliclazide	API	21187-98-4				
129.	OlmesartanMedoximil	API	144689-63-4				
130.	TritylOlmesartanMedoximil	Intermediate	14690-92-6				
131.	(Methylcobalamin) Vitamin B12	API	13422-55-4				
132.	Bromhexine HCl	API	611-75-6				
133.	N-(2-nitrobenzyl)-N-Methyl Cyclohexyl amine	Intermediate	80638-08-0				
134.	Bromhexine	Intermediate	3572-43-8				
135.	Bronopol	API	52-51-7				
136.	Niclosamide	API	50-65-7				
137.	3,5-Dimethyl-4-Nitro Pyridine -N- Oxide (OME Nitro)	Intermediate	14248-66-9				
138.	4,6-Dichloro pyrimidine	Intermediate	1193-21-1				

139.	Pyrimidine-4,6 diol	Intermediate	1193-24-4				Oxime/bacteriostatic antibiotic drug
140.	Meloxicam	API	71125-38-7				API/to treat arthritis
141.	2-Amino-5-methylthiazole	Intermediate	7305-71-7				Meloxicam/ to treat arthritis
142.	Methyl 4-hydroxy-2H-1, 2-benzothiazine-3-carboxylate 1,1-dioxide	Intermediate	35511-14-9				
R&D*				-	0.1M T/Month	0.1 MT/Month	
Total (Existing + Proposed)				75.0 MT/Month	-	75.0 MT/Month	

**Note: After Expansion production capacity will be remain unchanged. Addition product of API- Bulk Drug & its intermediates only.**

**# Brief Note of Product Profile:**

- **No of Manufacturing Plants: 1 no. (After expansion, Production will be remain unchanged)**
- **Brief Note regarding number of Products to be manufactured considering plant capacity:**
  - **At a time 3-4 Product will be manufacturing.**
  - **Considering manufacturing Plant capacity: 2.7Ton/Day.**

**ENDUSE OF PRODUCTS**

NAME OF PRODUCT	CAS No.	Type/ Category of Product (API/ Intermediate)	In case of Intermediate stage of API			Said API is used for/End Use of said API
			Stage i.e. n-1, n-2, etc.	Name of API in which Intermediate Used/ End use of said Intermediate	CAS no. (API)	
Existing						

1.	Glycerol monostearate	123-94-4	NA	NA	NA	NA	Food additive
2.	Butyl Stearate	123-95-5	NA	NA	NA	NA	Plastic additive
3.	Sorbitan Mono Sterate	1338-41-6	NA	NA	NA	NA	Food additive
4.	Calcium propionate	4075-81-4	NA	NA	NA	NA	Food additive
5.	Calcium Acetate	62-54-4	NA	NA	NA	NA	Food additive
6.	Zinc Stearate	557-05-1	NA	NA	NA	NA	Plastic additive
7.	Phenyl Acetone	103-79-7	Intermediates	n-1	Amphetamine	2706-50-5	Amphetamine/ increase your ability to pay attention, stay focused on an activity, and control behavior problems
8.	Benzyl Chloride	100-44-7	Intermediates	n-1	benzyl cyanide which is used to manufacture 2-phenylacetamide Penicillin G	103-81-1	To manufacture benzyl cyanide which is used to manufacture 2-phenylacetamide Penicillin G/ to treat patient with epilepsy Used as antibiotic
9.	Calcium Stearate	1592-23-0	NA	NA	NA	NA	Plastic additive
10.	N-Butyl Bromide	2398-37-0	Intermediates	n-1	Hydro Quise Butyl Bromide	149-64-4	Hydro Quise Butyl Bromide/ To treat crampy abdominal pain, esophageal spasms, renal colic, and bladder spasms
11.	Magnesium Stearate	557-04-0	NA	NA	NA	NA	Plastic additive

Proposed							
12.	Atorvastatin Calcium	13452 3-00-5	API	n	-	-	API/ improve Cholesterol level and fats
13.	Tetra-butyl 2-((4R,6R)-6-(2-aminoethyl)-2,2-dimethyl-1,3-dioxan-4-yl)acetate	12599 5-13-3	Intermedi ate	n-2	Atorvasta tin Calcium	13452 3-00-5	Atorvastatin Calcium /Improve Cholesterol level and fats
14.	Tert-butyl 2-((4R,6R)-6-(2-(2-(4-fluorophenyl)-5-isopropyl-3-phenyl-4-(phenylcarbamoyl)-1H-pyrrol-1-yl)ethyl)-2,2-dimethyl-1,3-dioxan-4-yl)acetate	12597 1-95-1	Intermedi ate	n-1	Atorvasta tin Calcium	13452 3-00-5	
15.	Torsemide	56211 -40-6	API	N	-	-	API/Heart failure, liver disease, and kidney disease
16.	2-aminobenzenesulfonic acid	88-21- 1	Intermedi ate	n-3	Torsemid e	56211 -40-6	Torsemide /Heart failure, liver disease, and kidney disease
17.	4-chloropyridine-3-sulfonamide	18368 -64-4	Intermedi ate	n-2	Torsemid e	56211 -40-6	
18.	4-(m-tolylamino)pyridine-3-sulfonamide	72811 -73-5	Intermedi ate	n-1	Torsemid e	56211 -40-6	
19.	Bisoprolol Fumarate	66722 -44-9	API	N	-	-	API/High blood pressure, heart attacks, and kidney problems
20.	4-((2-isopropoxyethoxy)methyl)phenol	17703 4-57-0	Intermedi ate	n-3	Bisoprolo l Fumarate	66722 -44-9	Bisoprolol Fumarate /High blood pressure, heart attacks, and kidney problems
21.	2-((4-((2-isopropoxyethoxy)methyl)phenoxy)methyl)oxirane	66722 -57-4	Intermedi ate	n-2			
22.	1-(4-((2-isopropoxyethoxy)methyl)phenoxy)-3-(isopropylamino)propan-2-ol	5790- 46-5	Intermedi ate	n-1			

23.	Artesunate	88495-63-0	API	N			Artesunate /Antimalarial
24.	Lumefantrine	82186-77-4	API	N			API /treat non-severe malaria. This medication is used only to treat malaria
25.	2-chloro-1-(2,7-dichloro-9H-fluoren-4-yl)ethane-1-ol	131023-37-5	Intermediate	n-3	Lumefantrine	82186-77-4	Lumefantrine /treat non-severe malaria. This medication is used only to treat malaria
26.	2-chloro-1-(2,7-dichloro-9H-fluoren-4-yl)ethane-1-ol	131023-37-5	Intermediate	n-2	Lumefantrine	82186-77-4	
27.	2-(dibutylamino)-1-(2,7-dichloro-9H-fluoren-4-yl)ethane-1-ol	69759-61-1	Intermediate	n-1	Lumefantrine	82186-77-4	
28.	Dabigatran	211915-06-9	API	N	-	-	API /prevent blood clots
29.	(4-Cyano-phenylamino) acetic acid	42288-26-6	Intermediate	n-4	Dabigatran	211915-06-9	Dabigatran /prevent blood clots
30.	3-({2-[(4-cyano-phenylamino)-methyl]-1-methyl-1H-benzimidazole-5-carbonyl}-pyridine-2-yl-amino)-propionic acid ethyl ester methane sulfoate	211915-84-3	Intermediate	n-3	Dabigatran	211915-06-9	
31.	3-({2-[(4-carbamimidoyl-phenylamino)-methyl]-1-methyl-1H-benzimidazole-5-carbonyl}-pyridine-2-yl-amino)-propionic acid ethyl ester hydrogen chloride	7647-01-0	Intermediate	n-2	Dabigatran	211915-06-9	



32.	3-[(2-[[4-(Hexyloxycarbonylamino-imino-methyl)-phenylamino]-methyl]-1-methyl-1H-benzimidazole-5-carbonyl)-pyridine-2-yl-amino]-propionic acid ethyl ester	21191 5-06-9	Intermedi ate	n-1	Dabigatra n	21191 5-06-9	
33.	Strontium Renelate	13545 9-90-4	API	n	-	-	API /Osteoporosis
34.	Diethyl 3-oxopentanedioate	105- 50-0	Intermedi ate	n-3			
35.	Ethyl 5-amino-4-cyano-3-(2-ethoxy-2-oxoethyl)thiophene-2-carboxylate	58168 -20-0	Intermedi ate	n-2	Strontium Renelate	13545 9-90-4	Strontium Renelate / Osteoporosis
36.	diethyl 2,2'-((3-cyano-4-(2-ethoxy-2-oxoethyl)-5-(ethoxycarbonyl)thiophen-2-yl)azanediyl)diacetate	58194 -26-6	Intermedi ate	n-1			
37.	Phenylepherine HCl	61-76- 7	API	N	-	-	API /stuffy nose, sinus, and ear symptoms
38.	3-acetylphenyl acetate	2454- 35-5	Intermedi ate	n-3			
39.	3-(2-bromoacetyl)phenyl acetate & 2-(benzyl(methyl)amino-1-(3-hydroxyphenyl)ethane-1-one	38396 -89-3 & 71786 -67-9	Intermedi ate	n-2	Phenylep herine HCl	61-76- 7	Phenylepherine HCl /stuffy nose, sinus, and ear symptoms
40.	3-(1-hydroxy-2-(methylamino)ethyl)pheno l	532- 38-7	Intermedi ate	n-1			
41.	Azilsartan Kamedoxomil	86303 1-21-4	API	N	-	-	API /high blood pressure

42.	Methyl(E)-2-ethoxy-1-((2'-(N'-(ethoxycarbonyl)oxy)carbamiimidoyl-[1,1-biphenyl]-4-yl)methyl)-1H-benzo[d]imidazole-7-carboxylate	14740 3-65-4	Intermedi ate	n-4	Azilsarta n Kamedox omil	86303 1-21-4	AzilsartanKamedoxo mil /high blood pressure
43.	Methyl 2-ethoxy-1-((2'-(5-oxo-4,5-dihydro-1,2,4-oxadiazol-3-yl)-[1,1-biphenyl]-4-yl)methyl)-1H-benzo[d]imidazole-7-carboxylate	14740 3-52-9	Intermedi ate	n-3	Azilsarta n Kamedox omil	86303 1-21-4	
44.	Methyl 2-ethoxy-1-((2'-(5-oxo-4,5-dihydro-1,2,4-oxadiazol-3-yl)-[1,1-biphenyl]-4-yl)methyl)-1H-benzo[d]imidazole-7-carboxylic acid	14740 3-52-9	Intermedi ate	n-2	Azilsarta n Kamedox omil	86303 1-21-4	
45.	(5-methyl-2-oxo-1,3-dioxol-4-yl)methyl 2-ethoxy-1-((2'-(5-oxo-4,5-dihydro-1,2,4-oxadiazol-3-yl)-[1,1-biphenyl]-4-yl)methyl)-1H-benzo[d]imidazole-7-carboxylate	86303 1-21-4	Intermedi ate	n-1	Azilsarta n Kamedox omil	86303 1-21-4	
46.	Rosuvastatin Calcium	14709 8-20-2	API	N	-	-	API/ Lowers "bad" cholesterol
47.	N-[5-(bromo methyl)-4-(4-fluoro phenyl)-6-isopropyl pyrimidin-2-yl]-N-methyl methane sulfonamide. TPP salt	79984 2-07-2	Intermedi ate	n-3	Rosuvast atin Calcium	14709 8-20-2	Rosuvastatin Calcium/ Lowers "bad" cholesterol
48.	Tert-butyl2-((4R,6S)-6-((E)-2-(4-(4-fluorophenyl)-6-isopropyl-2-(N-methylmethyl sulfonamido) pyrimidin-5-yl)vinyl)-2,2-dimethyl-1,3-dioxan-4-yl)acetate	28904 2-12-2	Intermedi ate	n-2	Rosuvast atin Calcium	14709 8-20-2	
49.	monomethylamine salt of rosuvastatin	28771 4-41-4	Intermedi ate	n-1	Rosuvast atin Calcium	14709 8-20-2	

50.	Levosulpiride	23672-07-3	API	N	-	-	API/symptoms of schizophrenia, anxiety disorders, and dysthymia
51.	2-methoxybenzoic acid	579-75-9	Intermediate	n-4	Levosulpiride	23672-07-3	Levosulpiride /symptoms of schizophrenia, anxiety disorders, and dysthymia
52.	2-methoxy-5-sulfamoylbenzoic acid	22117-85-7	Intermediate	n-3			
53.	Methyl 1,2-methoxy-5-sulfamoylbenzoate	33045-52-2	Intermediate	n-2			
54.	S-1-Ethyl-2-aminomethylpyrolidine	22795-99-9	Intermediate	n-1			
55.	Telmisartan	14470-1-48-4	API	N	-	-	API/high blood pressure
56.	Methyl 4-butyramido-3-methylbenzoate	30153-3-59-5	Intermediate	n-4	Telmisartan	14470-1-48-4	Telmisartan/high blood pressure
57.	Methyl 4-butyramido-3-methyl-5-nitrobenzoate	15262-8-01-8	Intermediate	n-3			
58.	Methyl 7-methyl-2-propyl-1H-benzo[d]imidazole-5-carboxylate	15262-8-00-7	Intermediate	n-2			
59.	7-methyl-2-propyl-1H-benzo[d]imidazole-5-carboxylic acid	15262-8-00-7	Intermediate	n-1			
60.	Quetiapine Hemifumarate	11197-4-69-7	API	N	-	-	API /schizophrenia, bipolar disorder
61.	2-nitro thio phenol	4875-10-9	Intermediate	n-4	Quetiapine Hemifumarate	11197-4-69-7	Quetiapine Hemifumarate /schizophrenia, bipolar disorder
62.	Phenyl-2-(phenylthio)amine	1134-94-7	Intermediate	n-3			
63.	Phenyl-2-(phenylthio)-phenyl carbonate	11197-4-73-3	Intermediate	n-2			
64.	Dibenzo[b,f]thiazepin-1,1(1OH)-one	3159-07-7	Intermediate	n-1			
65.	Carvedilol	72956-09-3	API	n	-	-	API/treat high blood pressure

66.	1,2,3,4-tetrahydrocarbazol-4-one	15128-52-6	Intermediate	n-3			
67.	4-hydroxy-9-(H) carbazole	52602-39-8	Intermediate	n-2	Carvedilol	72956-09-3	Carvedilol/treat high blood pressure
68.	4-oxyranylmethoxy-9-(H)-carbazole	51997-51-4	Intermediate	n-1			
69.	Clopidogrel Bisulphate	12020-2-66-6	API	N			
70.	2-(thiophen-2-yl)ethanol	5402-55-1	Intermediate	n-4	Clopidogrel Bisulphate	12020-2-66-6	Clopidogrel Bisulphate/ treat new/worsening chest pain
71.	2-(Thiophen-2-yl)ethyl 4-methylbenzenesulfonate	40412-06-4	Intermediate	n-3			
72.	(S)-Methyl 2-(2-chlorophenyl)- 2-((2-(thiophen-2-yl)ethyl) amino)acetate hydrochloride	14110-9-19-5	Intermediate	n-2			
73.	(S)-Methyl 2-(2-chlorophenyl)-2-(6,7-dihydrothieno [3,2-c]pyridin-5(4H)-yl)acetate sulfate	12020-2-71-3	Intermediate	n-1			
74.	Pregabalin	14855-3-50-8	API	N	-	-	API/ treat neuropathic pain and fibromyalgia.
75.	2-(3-Methyl-butylidene)-melonic acid diethyl ester	86369-44-0	Intermediate	n-4	Pregabalin	14855-3-50-8	Pregabalin/ treat neuropathic pain and fibromyalgia.
76.	2-(1-cyan0-3-methyl-butyl)-malonic acid diethyl ester	18603-8-82-4	Intermediate	n-3			
77.	3-aminomethyl 5-methyl hexanoic acid	14855-3-50-8	Intermediate	n-2			
78.	s(+)-Pregabalin mandalate salt	4118-51-8	Intermediate	n-1			
79.	Levocetirizine Dihydrochloride	13001-8-77-8	API	N	-	-	API/relieve allergy symptoms

80.	1-Methanesulfonyl-4-methylbenzene,( 2-chloro-ethyl)- chloromethylamine	1671-18-7	Intermedi ate	n-4	Levocetiri zine Dihydroc hloride	13001 8-77-8	Levocetirizine Dihydrochloride/ relieve allergy symptoms
81.	1-[(4-Chloro-phenyl)-phenyl-methyl]-4-(toluene-4-sulfonyl)-piperazine	16383 7-56-7	Intermedi ate	n-3			
82.	1-[(4-Chloro-phenyl)-phenyl -methyl]-piperazine	38212 -33-8	Intermedi ate	n-2			
83.	1-{4-[(4-Chloro-phenyl)-phenyl -methyl]-piperazin-1-yl}-ethanol	10980 6-71-5	Intermedi ate	n-1			
84.	Moxifloxacin HCl	18682 6-86-8	API	N	-	-	API/ Antibiotic
85.	5H-pyrrolo [3,4-b]pyridine-5,7(6H)-dione	4664-00-0	Intermedi ate	n-4	Moxifloxa cin HCl	18682 6-86-8	Moxifloxacin HCl/ Antibiotic
86.	8-benzyl-7,9-dione-2,8-diazabicyclo[4.3.0]nonane	NA	Intermedi ate	n-3			
87.	Cis-8-benzyl-7,9-dione-2,8-diazabicyclo[4.3.0]nonane	NA	Intermedi ate	n-2			
88.	(4aS,7aS)-Octahydro-1H-pyrrol[3,4-b]pyridine	15121 3-40-0	Intermedi ate	n-1			
89.	Amisulpiride	53583 -79-2	API	N	-	-	API/Antipsychotic
90.	Topiramate	97240 -79-4	API	n	-	-	API/Control seizures (epilepsy).
91.	2, 3,4, 5-Bis-O-(1-MethylEthylidene)-B-D-fructopyranose	20880 -92-6	Intermedi ate	n-1	Topirama te	97240 -79-4	Topiramate /Control seizures (epilepsy).
92.	Levitiracetam	10276 7-28-2	API	n	-	-	API/ Antiepileptic
93.	Azithromycin dihydrate	11777 2-70-0	API	n	-	-	API /Skin infections, ear infections, eye infections

94.	Irbesartan	13840 2-11-6	API	n	-	-	API/Antihypertensive
95.	4'-(2-Butyl-4-oxo-1,3-diazaspiro[4,4]non-1-ene-3-yl methyl)biphenyl-2-carbonitrile	13840 1-24-8	Intermediate	n-2	Irbesartan	13840 2-11-6	Irbesartan / Antihypertensive
96.	2-n-butyl-4-spiro cyclopenetrane-1-((2'-triphenyl methyl tetrazol-5-yl) biphenyl-4-yl methyl)-2-imidazole	12475 1-00-4	Intermediate	n-1	Irbesartan	13840 2-11-6	Irbesartan / Antihypertensive
97.	Flurbiprofen	5104- 49-4	API	n	-	-	API/Painkiller
98.	Cloxacillin Sodium	7081- 44-9	API	n	-	-	API/Antibiotic
99.	Terbinafine Hydrochloride	78628 -80-5	API	n	-	-	API/Antifungal
100.	Terbinafine	91161 -71-6	Intermediate	n-1	Terbinafine Hydrochloride	78628 -80-5	Terbinafine Hydrochloride/ Antifungal
101.	Azithromycin	83905 -01-5	API	n	-	-	API/Antibiotic
102.	Roxithromycin	80214 -83-1	API	n	-	-	API/Antibiotic
103.	Tramadol Hydrochloride	36282 -47-0	API	n	-	-	API/Painkiller
104.	Ornidazole	16773 -42-5	API	n	-	-	API/Antiprotozoal
105.	Des Loratadine	10064 3-71-8	API	n	-	-	API/Anti-Allergic
106.	Fexofenadine Hydrochloride	15343 9-40-8	API	n	-	-	API /Anti-Allergic
107.	4-(4-(hydroxydiphenylmethyl) piperidin-1-yl)-1-(4-(2-methyl-3-oxobutan-2-yl)phenyl)butan-1-one	15343 9-40-8	Intermediate	n-1	Fexofenadine Hydrochloride	15343 9-40-8	Fexofenadine Hydrochloride/ Anti-Allergic

108.	Sertraline Hydrochloride	79559-97-0	API	n	-	-	API/Antidepressant
109.	(4-(3,4-dichloro-phenyl)-1,2,3,4-tetrahydro-naphthalen-1-ylidene)-methyl-amine	1198084-29-5	Intermediate	n-1	Sertraline Hydrochloride	79559-97-0	Sertraline Hydrochloride /Antidepressant
110.	Sildenafil	160970-54-7	API	n	-	-	API/ to treat signs and symptoms of an enlarged prostate gland
111.	Clarithromycin	81103-11-9	API	n	-	-	API/Antibiotic
112.	Lisinopril	83915-83-7	API	n	-	-	API/Antihypertensive
113.	Arteether	75887-54-6	API	n	-	-	API/Antimalarial
114.	Gabapentin	60142-96-3	API	n	-	-	API/ Antidepressant
115.	(1-aminomethyl-cyclohexyl)-acetic acid	60142-95-2	Intermediate	n-1	Gabapentin	60142-96-3	Gabapentin / Antidepressant
116.	Hydrochlorothiazide	58-93-5	API	n	-	-	API /Antihypertensive
117.	Atenolol	29122-68-7	API	n	-	-	API/Antihypertensive
118.	Domperidone	57808-66-9	API	n	-	-	API/Antiemetic
119.	Amoxicillin Trihydrate	61336-70-7	API	n	-	-	API/Antibiotic
120.	Venlafaxine Hydrochloride	99300-78-4	API	n	-	-	API/Antidepressant
121.	Donepezil Hydrochloride	120011-70-3	API	n	-	-	API/Antidepressant
122.	Celecoxib	169590-42-5	API	n	-	-	API /pain or inflammation
123.	4,4,4-trifluoro-1-(4-methyl phenyl) butano-1,3-dione	720-94-5	Intermediate	n-1	Celecoxib	169590-42-5	Celecoxib/pain or inflammation

124.	Pantoprazole Sodium	13878 6-67-1	API	n	-	-	API/stomach and esophagus problems
125.	(2-(chloromethyl)-3,4-dimethoxypyridine hydrochloride	72830 -09-2	Intermediate	n-3	Pantoprazole Sodium	13878 6-67-1	Pantoprazole Sodium /stomach and esophagus problems
126.	Panto-I (Sulphide)	139- 66-2	Intermediate	n-2			
127.	Panto-2 (Sulphoxide) (5-(difluoromethoxy)-2- {[3,4-dimethoxypyridin- 2-yl)methyl] thio}-1H2 benzimidazole	10262 5-64-9	Intermediate	n-1			
128.	Gliclazide	21187 -98-4	API	n	-	-	API/ to treat type 2 diabetes
129.	Olmesartan Medoximil	14468 9-63-4	API	n	-	-	API/ Treatment of hypertention
130.	Trityl Olmesartan Medoximil	14690 -92-6	Intermediate	n-1	Olmesartan Medoximil	14468 9-63-4	Olmesartan Medoximil/ Treatment of hypertention
131.	(Methylcobalamin) Vitamin B12	13422 -55-4	API	n	-	-	API/ treat vitamin B12 deficiency
132.	Bromhexine HCl	611- 75-6	API	n	-	-	API/used in a condition where there is a lot of thick phlegm in the airways
133.	N-(2-nitrobenzyl)-N-Methyl Cyclohexyl amine	80638 -08-0	Intermediate	n-2	Bromhexine HCl	611- 75-6	Bromhexine HCl/used in a condition where there is a lot of thick phlegm in the airways
134.	Bromhexine	3572- 43-8	Intermediate	n-1			
135.	Bronopol	52-51- 7	API	n	-	-	API/ antimicrobial
136.	Niclosamide	50-65- 7	API	n	-	-	API/to treat broad or fish tapeworm, dwarf tapeworm, and beef tapeworm infections



137.	3,5-Dimethyl-4-Nitro Pyridine -N- Oxide (OME Nitro)	14248-66-9	Intermediate	n-3	Niclosamide	50-65-7	Omeprazole/ to treat and prevent the return of ulcers caused by a certain type of bacteria
138.	4,6-Dichloro pyrimidine	1193-21-1	Intermediate	n-2			Erythromycin Oxime/bacteriostatic antibiotic drug
139.	Pyrimidine-4,6 diol	1193-24-4	Intermediate	n-1			
140.	Meloxicam	71125-38-7	API	n	-	-	API/to treat arthritis
141.	2-Amino-5-methylthiazole	7305-71-7	Intermediate	n-2	Meloxicam	71125-38-7	Meloxicam/ to treat arthritis
142.	Methyl 4-hydroxy-2H-1, 2-benzothiazine-3-carboxylate 1,1-dioxide	35511-14-9	Intermediate	n-1			

- The project falls under Category B2 of project activity 5(f) as per the schedule of EIA Notification 2006 and amendment dated 27<sup>th</sup> March, 2020.
- The proposal was considered in the SEAC video conference meeting dated 06.07.2021
- During the meeting dated 06.07.2021, the project was appraised based on the information furnished in Form – 1, Pre-Feasibility Report, Environment Management Plan and details submitted by e-mail.
- Project proponent (PP) and Technical expert of PP, M/s. Envycraft Environmental Services remains present during video conference meeting.
- This is an existing unit and proposed for expansion project for manufacturing of synthetic organic chemicals (API and API intermediates) at GIDC Panoli. Unit is having valid EC and CCA for existing plant. PP presented self certified complianc report for EC and CCA for existing plant. Product profile with its end-use is discussed in depth. Source of water supply is GIDC. Committee noted that PP has addressed there is no legal court case and public complaint against unit. PP presented one Notice of Direction and one Show Cause Notice (SCN) issued by GPCB to unit and its reply submitted at GPCB was presented by PP during meeting. Committee noted that PP has addressed area adequacy with layout plan for proposed project site. Upon asking regarding area adequacy for proposed expansion of production plant, PP said that there is no change in production capacity and only addition of API and its intermediates in existing production plant and at a time, only 3-4 products will be manufactured in existing plot of 1088 sq. meter. Looking to plot area of 1088 sq. meter for proposed addition of API and its intermediate production and green belt area of 100 sq. meter mentioned in layout plan within premises, Committee asked for additional greenbelt development, technical expert of PP presented 260 sq. meter area allotted by GIDC to unit for greenbelt development

outside premises in GIDC.

- Committee noted the following:
  - ✓ Product profile with specific End-use of each product. At a time, 3-4 products can be manufactured.
  - ✓ PP has proposed primary ETP and solvent stripper for total effluent treatment and then will be evaporated in in-house spray dryer.
  - ✓ Fire load calculation mentioning fire water storage, foam type extinguishers, foam trolley extinguishers and fire pumps.
  - ✓ Natural gas is proposed as fuel in boiler, TFH and spray dryer.
  - ✓ Two stage scrubbers will be provided with each proposed process stack.
  - ✓ Scrubbing liquor will be reused within premises or sold as per Hazardous waste Rules.
  - ✓ PP submitted hazardous waste matrix mentioning source of generation, quantity and Mode of disposal and committed to comply the Hazardous and Other Wastes (Management and Transboundary Movement) Rules 2016.
- Looking to mentioning no waste water generation after proposed expansion, eventhough addition of 130 API and its intermediate as proposed products, Committee asked for clarification regarding it. Technical expert of PP clarified that waste water generation is not increased due to considering worst case scenario of existing product namely calcium stearate after proposed expansion and hence waste water generation from process is not increased. Hence Committee insisted for showing waste water generation quantity from each and every existing as well as proposed products for clarification authenticity proof, technical expert of PP have not submitted this details in presentation and requested for submission after meeting through e-mail. Committee agreed with request and later on technical expert of PP submitted waste water generation quantity from each and every existing as well as proposed products in KL/MT in place of KI/Day through e-mail.
- Committee deliberated on Layout plan, Storage details, Process safety, Fire safety, water balance & waste water management, Flue gas and process gas emission & Air Pollution Control System, Hazardous waste matrix, EMP, CER, Green belt, etc. Looking to mentioning only 10% greenbelt within premises in layout plan and two stair cases in production plant area, Committee insisted for revised layout plan and PP later on submitted revised layout plan with mentioning only two stair cases in it.
- **After detailed discussion, Committee unanimously decided consider the project in one of upcoming meeting after submission of following documents:**
  1. Proper technical justification regarding no additional waste water generation from process even though addition of 130 API and its intermediate products in existing plant of simply basic chemical and organic salt products. Also submit waste water generation quantity from each and every existing as well as proposed product in KLPD.
  2. Revised adequate size greenbelt area within premises in place of only 9% of total plot area and revised layout plan along with justification regarding changes made in Green belt area as accorded by SEIAA in existing plant EC order dated 26/02/2019.

- PP submitted their reply for the query raised by SEAC during SEAC meeting dated 06.07.2021 through email.
- The proposal was reconsidered in the SEAC video conference meeting dated **05.08.2021**.
- Revised Salient features of the project including Water, Air and Hazardous waste management are as under:

Sr. no.	Particulars	Details				
<b>A-1</b>	Total <b>cost of Proposed Project</b> (Rs. in Crores):					
		Existing	Proposed	Total		
		1.80Crores	1.09 Crores	2.89 Crores		
	Break-up of proposed project Cost:					
	<b>Details</b>	<b>Existing (Rs. In Crores)</b>	<b>Proposed (Rs. In Crores)</b>	<b>Total (Rs. In Crores)</b>		
	<b>Land</b>	<b>0.01</b>	<b>-</b>	<b>0.01</b>		
	<b>Building</b>	<b>0.24</b>	<b>0.26</b>	<b>0.5</b>		
	<b>Plant &amp; Machinery</b>	<b>0.46</b>	<b>0.54</b>	<b>1.0</b>		
	<b>Other</b>	<b>1.09</b>	<b>0.29</b>	<b>1.38</b>		
<b>A-2</b>	<b>Details of Environmental Management Plan (EMP)</b>				As below:	
<b>Sr. No</b>	<b>Unit</b>	<b>Installed Capacity (KLD)</b>	<b>Capital Cost (Rs. in Lacs)</b>	<b>Operating Cost (Lacs/Month)</b>	<b>Maintenance Cost (Lacs/Month)</b>	<b>Total Recurring Cost (Lacs/Month)</b>
1	Water	ETP	9.1	1.58	0.17	1.75
		Stripper	10.0	2.36	0.24	2.60
		Spray Dryer	35.8	5.0	2.3	7.3
2	APCM	6 Nos. Scrubber 1MCS	28.3	0.7	0.35	1.05
	LDAR					
3	Hazardous Waste (Expense)	Membership & Disposal + Incineration	1.0	2.6	-	2.6
		Transportation	-	0.4	-	0.4
4	AWH Monitoring Cost	In House Monitoring	1.50	0.10	-	0.10
5	Fire & Safety	Fire Hydrant & pipeline System	14.5	0.12	0.06	0.18
		Safety equipment/PPES	6.0	0.06	0.03	0.09
		Fire Extinguisher & Foam Trolley	2.5	0.02	0.01	0.03
		Integrated DCS	20.00	1.00	0.02	1.02
		Flameproof Electric Fitting	5.0	0.25	0.05	0.30
6	Greenbelt	Trees	0.4	0.04	0.02	0.06
7	Occupational Health	OHC, Training & Medical Check-up	2.00	0.10	0.20	0.30
8	CER	1% of proposed project cost	1.50	0.01	0.002	0.012
	<b>Total</b>		<b>137.6 ~138.0</b>			<b>17.79</b>

**Summary**

Cost of Project in Crores per Lakhs:	289.0 Lakh
EMP Capital Cost in Lakhs:	138.00 Lakh
EMP Recurring Cost in Lakhs/Annum:	213.48 Lakh

**A-3**

**Details of CER as per OM dated 01/05/2018**(In case of project falls under CPA/SPA, CER fund allocation to be at least 1.5 times the slabs given in the OM dated 01.05.2018 for SPA and 2 times for CPA in case of Environmental Clearance as per the mechanism published vide MoEF&CC's OM vide 31.10.2019.)

	% as per the OM	Rs. in Lakh
<b>Existing as per EC:</b>	1%	1.50 Lakh
<b>Proposed Additional:</b>	1%	1.50 Lakh

Brief note on proposed activities:

**As Per EC:**

Activities	Total Budget	
	Rs. in Lakh	
▪ Educational Activities/ Skill Development	0.75	
▪ Medical & Health Facilities	0.75	
<b>Total Cost</b>	<b>Approx. INR</b>	<b>1.50 Lakh</b>

**Proposed (Additional):**

Activities (On basis of Needs Assessment)	Phase Wise Budget		
	1 <sup>st</sup> Year	2 <sup>nd</sup> Year	TOTAL
<b>Solar Panel &amp; Solar Street Light-</b>			
▪ Solar Panel to Gram Panchayat Offices: 3 KW X 1 Nos (1 lakh) & Solar Street light (12 Watt) (3 Nos. X 16000) in <b>Village- Bakrol</b>	1.50	-	1.50
<b>Total Cost</b>	<b>Approx. INR</b>		<b>1.50 Lakh</b>

**B****Land / Plot ownership details:**

Land Possession letter No.: GIDC/RM-A/ALT/PL/SHD/3849 Dated:21/12/2017

**B-1****Plot area**

	Existing	Proposed	Total
<b>Total Area:</b>	<b>1088.0 Sq. m.</b>	Nil	<b>1088.0 Sq. m.</b>

**B-2**Brief note on **Area adequacy** in line to proposed project activities:

- Total Production: (Existing:75 MT/Month)
- Company will store its raw material in Tanks (We procure Raw Materials from the local market. 90% of these raw materials are easily available from this market. Hence, no excess quantity of raw materials will be stored).
- List of Hazardous chemicals stored in tanks shown below.

S.N	Name of chemical	Quantity (Nos.)	Total (Nos.)	Total Qty. to be store (KL)
<b>Non-PESO 3 Tank</b>				
1	Hydrochloric Acid	5 KL	1 Nos.	5 KL
2	Nitric Acid	5 KL	1 Nos.	5 KL
3	Caustic sol. (NaOH Sol.)	5 KL	1 Nos.	5 KL

- Area required for ETP 35.0 m<sup>2</sup> & for Spray Dryer 66 m<sup>2</sup>.
- 25 m<sup>2</sup> areas provided for the Boiler,
- 25 m<sup>2</sup> areas provided for Cylinder Storage area.

- 80 m<sup>2</sup> areas (G+2) provided for Hazardous waste Storage area.
- 194.4 m<sup>2</sup> areas (G+2) will be provided for the manufacturing of the proposed products.

Sr. No	Particulars	Criteria for Storage	Inventory Required (MT)(KL)	Area Required m <sup>2</sup>	Area Proposed m <sup>2</sup>
1	Finished product storage area (1-week inventory)	0.5 MT/ 1m <sup>2</sup>	20	40	65.6
2	Raw Material Store area (1 week inventory) (G+2)	0.5 MT/ 1m <sup>2</sup>	80	160	183.6
3	Drum Storage Area (Storage at a time)	100 Drum (0.5 MT/ 1m <sup>2</sup> )	20	50	65.6
4	Non-PESO Storage Area (Storage at a time)	Tanks 5 KL x 3	15.0	30.0	40.0
5	Cylinder Storage Area (Nitrogen, Hydrogen, Chlorine, HCl & NH <sub>3</sub> Gas) (Storage at a time)	-	0.565	18.0	25.0
6	Hazardous Waste Storage Area(G+2) (90 Day Inventory)	-	250.0	120.0	240.0
	<b>Total</b>		<b>385.56 MT</b>	<b>418 m<sup>2</sup></b>	<b>599.8 m<sup>2</sup></b>

- Hence, adequate area is available for proposed expansion in Bulk drug & its intermediate mfg. Facility.

**B-3**

**Green belt area**

	Existing	Proposed (Sq. meter)	Total (Sq. meter)
Area in Sq. meter	100 (In plant Premises) + 260 (in GIDC area)	-	360 (In plant Premises: 100& In GIDC Area: 260)
% of total area	33%	-	33%

**C**

**Employment generation**

Existing	Proposed	Total
25 (Direct: 10 Indirect: 15)	--	25 (Direct: 10 Indirect: 15)

**D**

**WATER**

**D-1**

**Source of Water Supply**

(GIDC, Bore well, Surface water, Tanker supply etc...)

GIDC Water Supply Authority

Status of permission from the concern authority.

Obtained (Vide Letter No.: NAO/PNK/2270 Dated:31/03/2021)

**D-2**

**Water consumption (KLD)**

Category	Existing KLD			Proposed (Additional) KLD	After Expansion KLD			Remarks
	Total	Recycle/Reuse	Fresh		Total	Recycle	Fresh	
(M) Domestic	3.0	-	3.0	-	3.0	-	3.0	
(N) Gardening	1.0	-	1.0	-	1.0	-	1.0	
(O) Industrial								Source: GIDC
Process	7.50	-	7.50	-	7.50	-	7.50	WC: Calcium Acetate & Calcium Stearate
Washing	1.5	-	1.5	-	1.5	-	1.5	
Boiler	4.0	2.5	1.5	-	4	2.5	1.5	Total Water Req.: 4 KLD Boiler Condensate Recovery: 2.5 KLD <b>Hence, Fresh water: 1.5 KLD</b>
Cooling	1.0	-	1.0	-	1.0	-	1.0	
Others (Scrubbing)	1.5	-	1.5	3.3	4.8	0.3	4.5	Boiler and Cooling blow down = 0.3 KLD reuse after neutralization.
<b>Industrial Total</b>	<b>15.5</b>	<b>2.5</b>	<b>13</b>	<b>3.3</b>	<b>18.8</b>	<b>2.8</b>	<b>16</b>	
<b>Grand Total (A+B+C)</b>	<b>19.5</b>	<b>2.5</b>	<b>17</b>	<b>3.3</b>	<b>22.8</b>	<b>2.8</b>	<b>20</b>	

**Brief Note on worst case scenario for water consumption:**

- Total fresh Water Requirement of the proposed project will be 20.0 KLD, out of which Water Consumption for Process will be 7.50 KLD
- Worst Case Scenario;

S. N	Product Name	Water req. (in KL) for 1 MT production	Total Production (MT/Month)	Total water req. (KLD)
<b>Existing</b>				
1	Calcium Acetate	1.20	50	2.00
2	Calcium Stearate	6.53	25	5.50
Total				7.50

**Note:** After Expansion Worst case of Water Req. will be remain Unchanged.

Summary of water requirement	Existing KLD	Proposed (Additional) KLD	Total after Expansion KLD	Remarks
<b>Total water requirement</b>	19.5	3.30	22.8	GIDC

	for the project (A)				Water Supply Authority
	Quantity to be recycled (B)	2.5	0.3	2.8	
	Total fresh water requirement (C)	17.00	3.00	20.00	
Ensure <b>Total water requirement = Fresh water + Recycled water</b> i.e. <b>A = B + C</b>					
<b>Reuse/Recycle details (KLD) with feasibility.</b> <b>[Source of reuse &amp; application area]</b>					
	<b>Source of waste water for reuse in KLD (From where it is coming)</b>	<b>Application area with quantity in KLD (Where it is used)</b>	<b>Characteristics of waste water to be reused (COD, BOD, TDS etc.)</b>	<b>Remarks regarding feasibility to reuse</b>	
	2.5 KLD from Boiler (Condensate recovery)	2.5 KLD recycled in Boiler	pH: 7.5-8.0 BOD<BDL COD<BDL	Yes, it is Feasible.	
	Boiler Blow down: 0.2 KLD + Cooling Blow down : 0.1 KLD	Scrubbing: 0.3 KLD	pH – 6-8 TSS < 65 mg/l TDS < 400 mg/l BOD < 15 mg/l COD < 45 mg/l		
<b>In case of no reuse/recycle of waste water, Give brief note on justification as why no reuse/recycle.</b>					
<ul style="list-style-type: none"> <li>In Boiler 2.5 KLD condensate recovery considered in the recycle, hence make up reduced to 1.5 KLD.</li> <li>Wastewater 0.3 KLD (0.2 KLD from Boiler &amp; 0.1 KLD from cooling) will be Equalization cum Neutralization Tank &amp; then reused for Scrubbing.</li> </ul>					
<b>D-3</b>	<b>Waste water generation (KLD)</b>				
	<b>Category</b>	<b>Existing KLD</b>	<b>Proposed (Additional) KLD</b>	<b>Total after Expansion KLD</b>	<b>Remarks</b>
	(I) Domestic	2.5	-	2.5	Will be treated into ETP.
	(J) Industrial				
	Process	7.10	-	7.10	<b>WC:</b> Calcium Stearate
	Washing	1.5	-	1.5	Reuse in Scrubbing after neutralization.
	Boiler	0.2	-	0.2	
	Cooling	0.1	-	0.1	Will be treated in ETP.
	Scrubbing Solution (25-30% NaCl/NaOCl)	1.5	-	1.5	
	Scrubbing Solution (10-15% NaNO <sub>2</sub> )	-	0.5	0.5	To End User
	Scrubbing Solution (25-30% NaBr/HBr)	-	1.0	1.0	
	Scrubbing Solution (18-20% Na <sub>2</sub> SO <sub>3</sub> )	-	1.0	1.0	To End User
	Scrubbing Solution (30% Liq. Ammonia)	-	0.8	0.8	Reuse within plant premises
	<b>Total Industrial</b>	<b>10.4</b>	<b>3.3</b>	<b>13.7</b>	

	<b>waste water</b>			
	<b>Total (A+B)</b>	<b>12.9</b>	<b>3.3</b>	<b>16.2</b>

**Brief Note on worst case scenario for waste water generation(Qualitative and Quantitative):**

- Total Waste Water Generation of the proposed project will be 16.2 KLD, out of which Waste Water Generation for Process will be 7.10 KLD.

S.N	Product	Waste Water Gen. (in KL) for 1 MT production	Total Production (MT/Month)	Total Waste water Gen. (KLD)	Characteristics
<b>Existing</b>					
1	Calcium Stearate	7.08	25	6.8~7.1	pH – 6.5-7.5 TSS - 210 mg/l TDS -17000 mg/l BOD -500 mg/l COD -2786 mg/l
<b>Hence Worst Case Considered is</b>				<b>7.1 KLD</b>	

**Brief justification in case of no process effluent generation or no industrial effluent generation or no high concentration effluent generation from proposed project (Whichever is applicable).**

- Not Applicable.
- There will be effluent generation. The detail has been furnished in water Balance.

**D-4** Mode of Disposal & Final meeting point (Existing and Proposed)

**Existing and Proposed**

<b>Existing</b>	
Domestic:	Domestic wastewater disposal by Septic Tank & Soak Pit.
Industrial:	Industrial Wastewater@ 10.4 KLD will be treated into In-house Spray Dryer to achieve <b>Zero Liquid Discharge</b> .
<b>Total Proposed</b>	
Domestic:	Domestic wastewater 2.5 KLD will be treated into ETP.
Industrial:	Industrial Wastewater@ 13.0 KLD will be treated into In-house Spray Dryer to achieve <b>Zero Liquid Discharge</b> .

**D-5** Treatment facilities

**For Domestic waste water:**

Capacity of STP: Not Applicable

**For Industrial waste water:** Treatment facility within premises with **capacity**

[In-house ETP (Primary, Secondary, Tertiary), MEE, Stripper, Spray Dryer, STP etc.

Treatment scheme including segregation at source. **(Give Characteristics of each stream i.e. COD, BOD, TDS etc.) In case of stream segregation, Separate ETP (ETP-1, ETP-2....) for each stream shall be proposed.**

- **Hydraulic Load:**
  - ✓ In-house Stripper: 12.9 KLD
  - ✓ In-House ETP (Primary): 13.1 KLD
  - ✓ In-House Spray Dryer: 13 KLD
- **Capacity:**
  - ✓ In-house Stripper: 15.0KLD
  - ✓ In-House ETP (Primary): 15.0 KLD
  - ✓ In-House Spray Dryer: 15 KLD

Treatment scheme including segregation at source. **(Give Characteristics of each stream i.e. COD, BOD, TDS etc.) In case of stream segregation, Separate ETP (ETP-1, ETP-2....) for each stream shall be proposed.**

**Stream 1:**

- Waste water Wastewater 0.3 KLD (0.2 KLD from Boiler & 0.1 KLD from cooling) will be



collected in Equalization cum Neutralization Tank & then reused for Scrubbing.

Sr. No.	Parameter	Unit	Utilities Characteristics		Combine Effluent after neutralization
			Boiler	Cooling	
<b>Quantity (KLD)</b>			<b>0.2</b>	<b>0.1</b>	<b>0.3</b>
1	pH	pH Unit	7.5-8	7.5-8	6.0-8.0
2	TSS	mg/L	56	87	<65
3	TDS	mg/L	500	100	<400
4	BOD	mg/L	10	16	<15
5	COD	mg/L	30	50	<40
6	Ammo. Nitrogen	mg/L	Nil	Nil	Nil

**Stream 2:**

- Waste water from process @ 7.1KLD will be combining with 1.5 KLD from washing & 1.5 KLD 25-30% of NaCl/NaOCl Sol. & 0.5 KLD 10-15% NaNO<sub>2</sub> Scrubbing Soln. & Domestic Wastewater 2.5 KLD.
- Combine wastewater @ 13.1 KLD Subjected to Primary ETP.

S r. N o.	Parame ter	Unit	Worst Case (Quantity) from Process	Domes tic Waste water	Stream from utilities Characteristics Dilute Stream		Combi ne Effluen t	After Primary treatmen t
			Calcium Stearate		Washing	Scrubber		
<b>Quantity (KLD)</b>			<b>7.1</b>	<b>2.5</b>	<b>1.5</b>	<b>2.0</b>	<b>13.1</b>	<b>13.1</b>
1	pH	pH Unit	6.5-7.5	6.0-8.0	6-8	7-8	6.5-7.5	6.5-7.5
2	TSS	mg/L	210	200	150	70	180	54
3	TDS	mg/L	17000	800	2500	500	9580	10059
4	BOD	mg/L	500	250	800	190	385	308
5	COD	mg/L	2786	10	2500	524	1843	1475
6	Ammo. Nitrogen	mg/L	NIL	NIL	NIL	NIL	NIL	Nil

**Stream 3:**

- Primary ETP treated Effluent @ 13.1 KLD allowed to in-house Solvent Stripper, where VOC will be stripped off.
- Treated effluent from stripper (12.9 KLD) will be allowed to in-house Spray Dryer to achieve Zero liquid Discharge (ZLD).

Sr. No.	Para	Unit	After Primary treatment	After Solvent Stripper
<b>Quantity (KLD)</b>			<b>13.1</b>	<b>12.9</b>
1	6.5-7.5	pH Unit	6.5-7.5	6.5-7.5
2	180	mg/L	54	54
3	9580	mg/L	10059	10059
4	385	mg/L	308	123
5	1843	mg/L	1475	590
6	NIL	mg/L	Nil	Nil

**Stream 4:**

- Scrubbing Solution 25-30% NaCl/NaOCl @ 1.5 KLD & 10-15% NaNO<sub>2</sub> @ 0.5 KLD will be subjected to in house ETP, Stripper & Spray Dryer.
- Scrubbing Solution 25-30% NaBr/HBr @ 1.0 KLD & 18-20% Na<sub>2</sub>SO<sub>3</sub> @ 1.0 KLD will be sell to end user.
- Scrubbing Solution 25-30% Liq. Ammonia @ 0.8 KLD will be reused within premises.

Note: (In case of CETP discharge) :

Management of waste water keeping in view direction under section 18 (1) (b) of the Water (Prevention and Control of Pollution) act, 1974 issued by CPCB regarding compliance of CETP.

➤ **Not Applicable**

Brief note on adequacy of ZLD (In case of Zero Liquid Discharge):

➤ **Industrial Wastewater @ 13 KLD will be treated into In-house Spray Dryer to achieve Zero Liquid Discharge.**

**D-6**

In case of Common facility (CF) i.e. CETP, Common Spray dryer, Common MEE, CHWIF etc.

**Name of Common facility (CF) (For waste water treatment)**

➤ **NA**

Membership of Common facility (CF) mentioning **total capacity, consented quantity, occupied capacity and spare capacity** and norms of acceptance of effluent from member units in-line with the direction given by GPCB vide Letter No. GPCB/P-1/8-G (5)/550706 dated 08/01/2020.

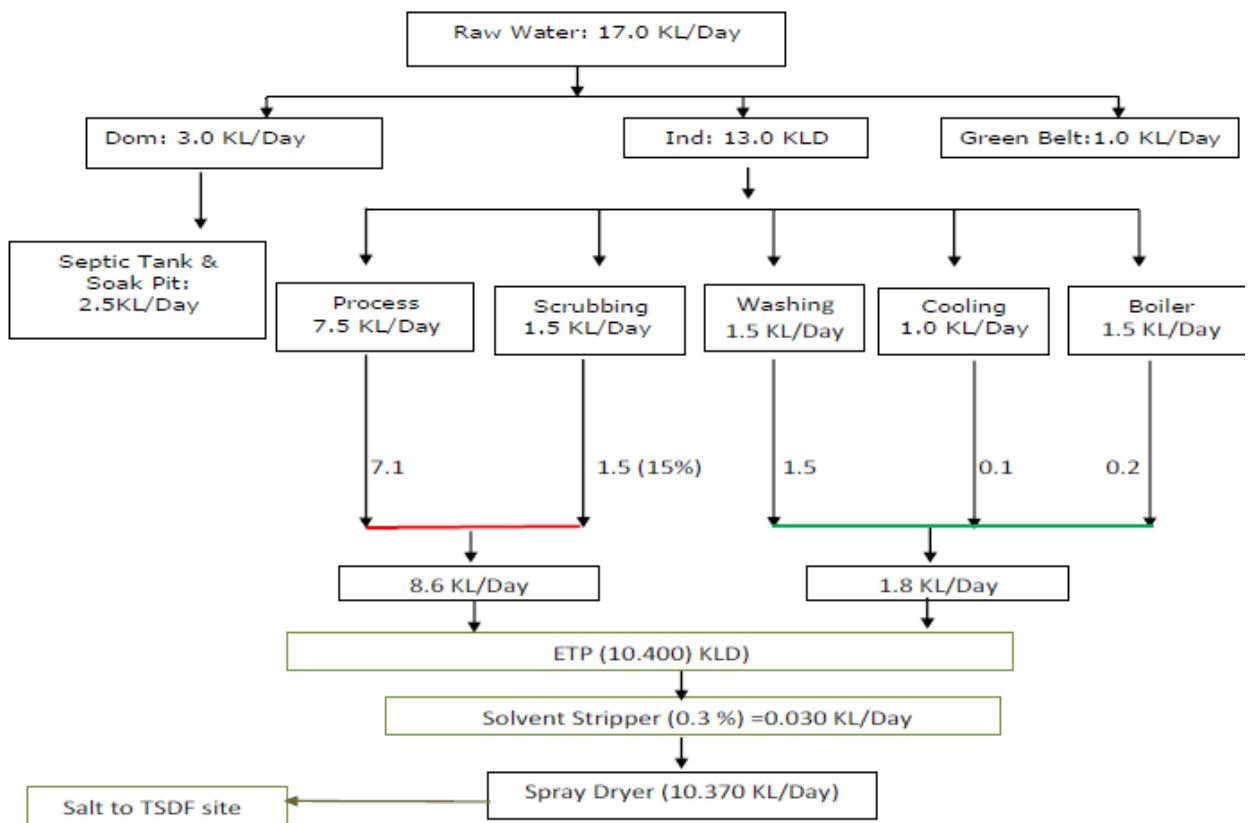
➤ **NA**

**D-7**

**Simplified water balance diagram with reuse / recycle of waste water (Existing and Proposed)**

**EXISTING WATER BALANCE: (BASIS: KLD)**

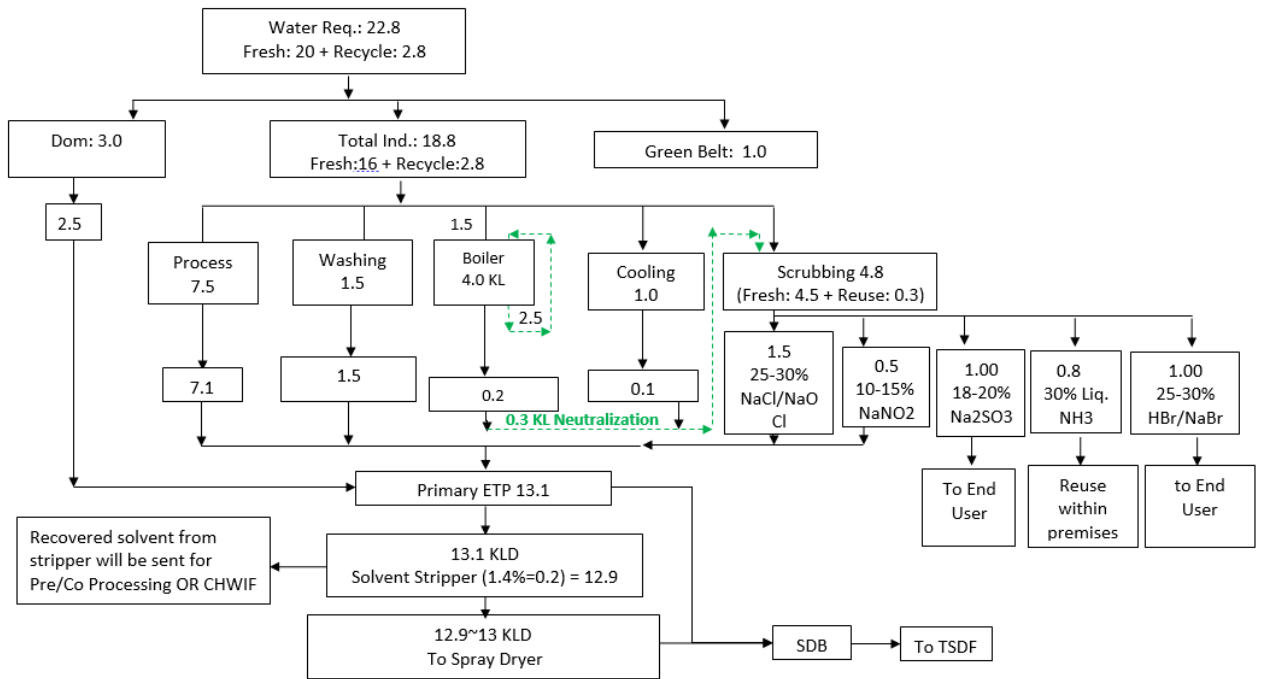
**WATER BALANCE DIAGRAM**



**TOTAL PROPOSED WATER BALANCE DIAGRAM (BASIS KLD)**

**TOTAL PROPOSED WATER BALANCE**

Source: GIDC Water Authority  
BASIS: KLD



**E AIR**

**E-1 Brief Note on fuel based Heat energy requirement and worst case scenario thereof:**

SN	Fuel Based Heat Energy (Total Proposed)	Proposed Fuel	Calorific Value (kcal/kg)	Working Hours (Worst Case)	Fuel Consumption in worst case
1	Boiler (0.15 TPH)	Natural Gas	7900 – 8500 kcal/kg	24 Hrs.	4Nm <sup>3</sup> /Hr.
2	Thermic Fluid Heater (2 Lakh Kcal/Hr.)	Natural Gas	7900 – 8500 kcal/kg	24 Hrs.	4Nm <sup>3</sup> /Hr.

**E-2 Flue gas emission details**

No. of Boilers/TFH/Furnaces/DG sets etc. with capacities viz. TPH, Kcal/hr, MT/hr, KVA etc. (In case of Project located within CPA/SPA, APCM shall be in line to the mechanism published in the MOEFCC's OM vide dated 31.10.2019)

**Existing**

Sr. no.	Source of emission With Capacity	Stack Height & Dia (meter)	Type of Fuel	Quantity of Fuel	Type of emissions i.e. Air Pollutants	Air Pollution Control Measures (APCM)
1	Steam Boiler (0.15 TPH)	9/0.50	Natural gas	4 Nm <sup>3</sup> /Hr.	PM < 150mg/Nm <sup>3</sup> SO <sub>x</sub> <100 ppm NO <sub>x</sub> <50 ppm	Adequate Stack Height
2	Thermic Fluid Heater (2 Lakh Kcal/Hr.)	11/0.50	Natural gas	4 Nm <sup>3</sup> /Hr.		Adequate Stack Height
3	DG Set (45 KVA)	9/0.25	Diesel	10 Lit./Hr		Adequate Stack Height
4	Spray Dryer (11 KL)	9/0.5	Natural gas	35 <sub>3</sub> Nm <sup>3</sup> /Hr.		Dust Collector & Venture Scrubber

**Total Proposed**

After Expansion Process Gas Emission Detail will remain Unchanged.

**E-3** **Process gas** i.e. Type of pollutant gases (SO<sub>2</sub>, HCl, NH<sub>3</sub>, Cl<sub>2</sub>, NO<sub>x</sub> etc.)**Existing:**

Sr. no.	Specific Source of emission (Name of the Product & Process)	Stack/Vent Height (meter)	Type of emission	Air Pollution Control Measures (APCM)
1	Reaction Vessel	11	Cl <sub>2</sub> < 7.2 mg/NM <sup>3</sup> HCl < 16 mg/NM <sup>3</sup>	Two Stage Alkali Scrubber

**Total Proposed:**

Sr. no.	Specific Source of emission (Name of the Product & Process)	Type of emissions i.e. Air Pollutants (SO <sub>2</sub> , HCl, Cl etc.)	Stack/Vent Height / Dia (meter)	Air Pollution Control Measures (APCM)
1	Process Vent – 1 <b>(Chlorination)</b> Benzyl Chloride	Cl <sub>2</sub> < 9 mg/Nm <sup>3</sup> HCl < 20 mg/Nm <sup>3</sup>	18 / 0.2	Two Stage Alkali Scrubber
2	Process Vent – 2 <b>(Sulphonation)</b> (2-(chloromethyl)-3,4-dimethoxypyridine hydrochloride	SO <sub>2</sub> < 40 mg/Nm <sup>3</sup>	18 / 0.2	Two Stage Alkali Scrubber
3	Process Vent – 3 <b>(Bromination)</b> Bronopol	HBr < 30 mg/Nm <sup>3</sup>	18 / 0.2	Two Stage Alkali Scrubber
4	Process Vent – 4 <b>(Nitrification)</b> Telmisartan	NO <sub>2</sub> < 25 mg/Nm <sup>3</sup>	18 / 0.2	Two Stage Alkali Scrubber
5	Process Vent – 5 <b>(Ammination)</b> Clarithromycin	NH <sub>3</sub> < 175 mg/Nm <sup>3</sup>	18 / 0.2	Two Stage Water Scrubber

**Note:**

- Details of gaseous raw materials used in proposed project
- Estimation of process gas emission (Product wise and Total)
- Requirement of the scrubbing media (KL per Day) considering solubility (Product wise and Total)
- Yearly generation of all bleed liquors (MT/KL per Annum) as mentioned above and its sound management in HW matrix.

S n	Product	Gaseous Raw Material	Process Gas Emission	Total Emission (MT/Day)	Requirement of Scrubbing Media (KL Per Day)	Solution / bleed liquors (KLD)	Solubility (%)	Solution / Bleed liquors (MT/Annum)
1	(2-(chloromethyl)-3,4-dimethoxypyridine hydrochloride	Thionyl chloride	SO <sub>2</sub>	0.2	0.80 (Caustic + Water)	1.0	> 90	365 MT/Annum (18-20% Na <sub>2</sub> SO <sub>3</sub> )

2	Benzyl Chloride	Chlorine Gas	HCl/Cl <sub>2</sub>	0.45	1.05 (Caustic + Water)	1.5	> 90	547 MT/Annum (25-30% NaCl/ NaOCl)
3	Bronopol	Bromine	HBr	0.30	0.7 (Caustic + Water)	1.0	> 90	365.0 MT/Annum (25-30% NaBr/HBr)
4	Telemisartan	Fuming Nitric Acid	NO <sub>2</sub>	0.07	0.43 (Caustic + Water)	0.5	> 90	182.0 MT/Annum (10-15% NaNO <sub>2</sub> )
5	Clarithromycin	Clarioxime	NH <sub>3</sub>	0.24	0.56 (Water)	0.8	> 90	292 MT/Annum (30% Liq. Ammonia)

**E-4** Fugitive emission details with its mitigation measures.

To mitigate fugitive emissions, the following steps would be taken:

- Minimum number of flanges, joints and valves in pipelines
- Selection / use of state-of-the art leak proof valves
- Provision of mechanical seals in pumps
- Proper preventive maintenance of roofs and seals for tanks
- Monitoring and preventive maintenance of valves, flanges, joints, etc.
- Fugitive emission over reactors, formulation areas, centrifuges, chemical loading, transfer area, shall be collected through hoods and ducts by induced draft and controlled by dust collector.
- For particulate / dust emissions from the coal handling system: Water will be sprinkled to control particulate / dust emission from coal storage area.
- Green belt will be developed along the plant premises
- De-dusting system will be provided at solid product finishing area.
- All transfer points will be fully closed.
- Overflow system with return line to storage tank from batch tank will be provided to prevent hazardous material overflow.

**F** Hazardous waste

(As per the Hazardous and Other Wastes (Management and Transboundary Movement) Rules 2016.

Note:

- **Priorities for HW Management:** Pre-processing, Co-Processing, Reuse/Recycle within premises, Sell out to actual users having Rule-9 permission, TSDF/CHWIH.
- **Quantification of hazardous waste shall be based on mass balance and calculations shall be incorporated in EMP details separately.**
- **Disposal to scrap vendors/vendors/traders is not allowed**

**F-1** Hazardous waste management matrix

Existing & Proposed

Sr. no.	Type/Name of Hazardous waste	Specific Source of generation (Name of the Activity, Product etc.)	Category and Schedule as per HW Rules.	Quantity (MT/Annum)			Management of HW
				Existing	Proposed	Total	

1.	ETP Sludge	ETP	35.3/S CH-I	60.0	-	60.0	Collection, Storage, Transportation, disposal at nearest TSDF site.
2.	Spray Dryer Salt	Spray Dryer	35.3/S CH-I	72.0	-	72.0	
3.	Process Waste (Inorganic)	Mfg. Process	28.1/S CH-I	1.2	-	1.2 (Sorbitan Mono Sterate)	
4.	Used Oil/ Spent Oil	TFH, DG & Other Utilities	5.1/SC H-I	0.12	-	0.12	Collection, Storage, Transportation & Reuse as lubricant or sale to authorized re- finers.
5.	Discarded Containers/ Bags/Liners	Raw Material Supplier	33.1/SC H-I	300. 0	-	300.0 (Nos. 10000 Container) (Nos. 10000000 Bags/Liners)	Collection, Storage, Transportation; Decontamination and Reuse or Sale to Authorized Vendor.
6.	Distillation Residue	Mfg. Process	20.3/S CH-I	14.4	60.6	75.0 (Existing:3.0& Proposed: Carvedilol-72)	Collection, Storage, Transportation & send to pre/co- processing units (cement industries) OR disposal at nearest CHWIF site.
7.	Spent Carbon	Mfg. Process	28.3/S CH-I	-	16	16.0 (4,6-Dichloro pyrimidine)	
8.	Spent Catalyst	Mfg. Process	28.2/S CH-I	-	30	30.0 (Carvedilol)	
9.	Spent Solvent	Mfg. Process	28.6/S CH-I	-	2161	2161 (Carvedilol)	<b>Collection, Storage, Handling &amp; Subjected to distillation assembly to recover the solvent &amp; Reuse within premise.</b>
10.		Stripper		9.0	-	9.0	<b>Collection, Storage, Transportation &amp; send to pre/co processing unit (Cement Industries) OR send to CHWIF.</b>
11.		Scrubbing Solution		Scrubbe r	Sch-I/ 28.1	547. 0	-

	25-30% NaCl					Chloride)	treated into in-house ETP & Spray Dryer.
	Scrubbing Solution 25-30% NaOCl						
12.	Scrubbing Solution 10-15% NaNO <sub>2</sub>	Scrubber	Sch-I/ 28.1	-	182.0	182.0 (Telmisartan)	
13.	Scrubbing Solution 25-30% NaBr/HBr	Scrubber	Sch-I/ 28.1	-	365.0	365.0 (Bronopol)	Collection, Storage, Transportation & Sell to End Users having permission under Rule-9.
14.	Scrubbing Solution 18-20% Sodium Sulphite (Na <sub>2</sub> SO <sub>3</sub> )	Scrubber	Sch-I/ 28.1	-	365.0	365.0 (2-(chloromethyl)-3,4-dimethoxypyridine hydrochloride)	
15.	Scrubbing Solution 25-30% Liq. Ammonia	Scrubber	Sch-I/ 28.1	-	292.0	292.0 (Clarithromycin)	Collection, Storage & Reuse within premises. (In the Mfg. process of -2-methoxy-5-sulfamoylbenzoic acid: 900 MT/Annum)
16.	Off Specification Product	Mfg. Process (Batch Failure)	Sch-I/ 28.4	-	1.0	1.0	Collection, Storage Transportation & send to Pre /Co-processing unit or send to CHWIF

**\* Justification for spent solvent generation & Captive reused**

Product Name	Solvent	Fresh Qty. Used MT/Day	Qty. Recovered MT/Day	Qty. Used MT/Day	Storage At a Time
Gr.-B Carvedilol	IPA	0.06	1.54	1.60	200 Lit. X 9 Nos. (1.8 KL)
	Toluene	0.11	2.06	2.17	200 Lit. X 12 Nos. (2.4 KL)
	Cyclohexane	0.05	1.19	1.24	200 Lit. X 7 Nos. (1.4 KL)
	Ethyl acetate	0.05	1.13	1.18	200 Lit. X 7 Nos. (1.4 KL)
<b>Total MT/day</b>		<b>0.27</b>	<b>5.92</b>	<b>6.19</b>	
<b>Total MT/Annum</b>		<b>99.28</b>	<b>2160.68~2161.0</b>	<b>2259.96</b>	

**F-2** Membership details of **TSDF, CHWIF** etc. (For HW management)

Details of Membership letter no. & Date with spare capacity of the Common Facility. ➤ M/s. BEIL, Ankleshwar(Vide letter No.:BEIL/ANK/2021 Dated: 26/03/2021)							
<b>F-3</b>	Details of Non-Hazardous waste & its disposal (MSW and others)			--			
<b>G</b>	<b>Solvent management</b> , VOC emissions etc.						
<b>G-1</b>	Brief Note on types of solvents, Details of Solvent recovery, % recovery, reuse of recovered Solvents etc.						
	<b>Product Name</b>	<b>Solvent</b>	<b>Qty. Used MT/MT</b>	<b>Qty. Recovered MT/MT</b>	<b>Distillation Residue</b>	<b>Total Losses Fresh</b>	<b>Solvent Recover y %</b>
	<b>Carvedilol</b>	IPA	1.92	1.84	0.0480	0.0768	96
		Toluene	2.60	2.47	0.0910	0.1300	95
		Cyclo hexane	1.49	1.43	0.0373	0.0596	96
		Ethyl acetate	1.42	1.36	0.0387	0.0600	96
<b>G-2</b>	<b>Brief Note on LDAR proposed:</b>						
	<p>The Following methodology to be adopted during LDAR study:</p> <ul style="list-style-type: none"> <li>➤ Identify the Chemical streams that must be monitored.</li> <li>➤ Types of components (pumps, valves, connectors, etc.) to be monitored</li> <li>➤ Frequency of monitoring.</li> <li>➤ Actions to be taken if a leak is detected.</li> <li>➤ Length of time in which an attempt to repair the leak must be performed.</li> <li>➤ Actions that must be taken if a leak cannot be repaired within guidelines.</li> <li>➤ Record-keeping and reporting requirements.</li> </ul>						
<b>G-3</b>	<b>VOC emission</b> sources and its mitigation measures						
	<ul style="list-style-type: none"> <li>➤ Leak Free Pumps for transfer of solvents.</li> <li>➤ MSW Gaskets in solvent pipelines to prevent leakage from flanges.</li> <li>➤ Minimum number of flanges, joints and valves in pipelines.</li> <li>➤ To eliminate chances of leakages from glands of pumps, mechanical seal will be provided at all solvent pumps.</li> <li>➤ All the rotating equipments like pumps will be installed with Mechanical Seals to arrest any sort of emissions.</li> <li>➤ Condenser and scrubber post Reactor with cooling arrangement.</li> <li>➤ Enclosures to chemical storage area, collection of emission from loading of raw materials in particular solvents through hoods and ducts by induced draft, and control by condenser to be ensured.</li> <li>➤ In case the small spillage or leakage observed, first pour the china clay (vermiculate) on material and collect the contaminated china clay (vermiculate) and send to ETP.</li> <li>➤ If the spillage is of inflammable liquid, switch off all the power supply in the area to prevent Electric Spark.</li> <li>➤ Two condensers will install with cooling water and chilled brine to recover the solvent.</li> <li>➤ Primary Condenser HE-01: Cooling Tower water or Chilled water at 5 °C will be used to condense the solvents depend on the vapor pressure at its operating conditions and the non-condensed vapors will be condensed in a Secondary Condenser.</li> <li>➤ VOC Trap Condenser HE-02: Chilled Brine at -15 °C will be used to trap any traces of Solvent which is slipped from Secondary condenser.</li> <li>➤ Emission of VOCs can be trapped from breathing and loading losses from storage tanks, venting of process vessels, leak from piping and equipment by means of hood connected with blower and send to condenser as shown in following diagram.</li> <li>➤ Condensed VOCs will be send to spent solvent recovery plant.</li> </ul>						
<b>H</b>	<b>SAFETY details</b>						
<b>H-1</b>	<b>Details regarding storage of Hazardous chemicals</b> (For tank storages only including spent acid and spent solvent tanks)						



S.N	Name of chemical	Quantity (Nos.)	Total (Nos.)	Total Qty. to be store (KL)
<b>Non-PESO 3 Tank</b>				
1	Hydrochloric Acid	5 KL	1 Nos.	5 KL
2	Nitric Acid	5 KL	1 Nos.	5 KL
3	Caustic sol. (NaOH Sol.)	5 KL	1 Nos.	5 KL
<b><u>Brief note on storage of Hazardous chemicals in Tanks</u></b>				
➤ Non-PESO- 3				
<b><u>Brief note on storage of Hazardous chemicals other than Tanks i.e. Drum, Barrels, Carboys, Bags etc.</u></b>				
<b>Safety Measures for Drum Storage area:</b>				
<ul style="list-style-type: none"> <li>✓ Some chemicals will be received at plant in drums by road truck and stored in a separate drum storage area.</li> <li>✓ FLP type light fittings will be provided.</li> <li>✓ Proper ventilation will be provided in go down.</li> <li>✓ Proper label and identification board /stickers will be provided in the storage area.</li> <li>✓ Conductive drum pallets will be provided.</li> <li>✓ Drum handling trolley / stackers/fork lift will be used for drum handling. Separate dispensing room with local exhaust and static earthing provision will be made.</li> <li>✓ Materials will be stored as per its compatibility study and separate area will be made for flammable, corrosive and toxic chemical drums storage.</li> <li>✓ Smoking and other spark, flame generating item will be banned from the Gate.</li> </ul>				
<b>Safety details of Hazardous Chemicals:</b>				
<b>Type of Hazardous Chemicals</b>	<b>Safety measures</b>			
<b>Non-PESO tank</b>	<b>Safety measures for Acid storage Tank:</b> <ul style="list-style-type: none"> <li>✓ Storage tank will be stored away from the process plant.</li> <li>✓ Tanker unloading procedure will be prepared and implemented.</li> <li>✓ Caution note and emergency handling procedure will be displayed at unloading area and trained all operators.</li> <li>✓ NFPA label will be provided.</li> <li>✓ Required PPEs like full body protection PVC apron, Hand gloves, gumboot, Respiratory mask etc. will be provided to operator.</li> <li>✓ Neutralizing agent will be kept ready for tackle any emergency spillage.</li> <li>✓ Safety shower, eye wash with quenching unit will be provided in acid storage area.</li> <li>✓ Material will be handled in close condition in pipe line.</li> <li>✓ Dyke wall will be provided to all storage tanks, collection pit with valve provision.</li> <li>✓ Double drain valve will provided.</li> <li>✓ Level gauge will be provided on all storage tanks.</li> <li>✓ Safety permit for loading unloading of hazardous material will be prepared and implemented. TREM CARD will be provided to all transporters and will be trained for transportation Emergency of Hazardous chemicals.</li> <li>✓ Fire hydrant system with jockey pump as per TAC norms will be installed.</li> </ul> <b>Safety Measures of Non PESO Tank</b> <ul style="list-style-type: none"> <li>✓ Leakage / spillage mitigation plan</li> <li>✓ Tank shall be rubber lined to prevent the corrosion</li> <li>✓ Dyke wall shall be provided for containment</li> <li>✓ Rubber type hand gloves and chemical splash goggles and full-face</li> </ul>			

	<p>cartridge type mask and PVC apron shall be used while manual handling</p> <ul style="list-style-type: none"> <li>✓ Lime shall be readily available during leak to neutralize the spill material</li> <li>✓ Safety shower, eye wash with quenching unit will be provided in acid storage area.</li> <li>✓ Material will be handled in close condition in pipe line.</li> <li>✓ Double drain valve will be provided.</li> <li>✓ Level gauge will be provided on all storage tanks.</li> </ul> <p>Fire hydrant system with jockey pump as per TAC norms will be installed</p>
<p>➤ <b>Applicability of PESO:Not Applicable</b></p>	
H-2	<p><b>Types of hazardous Processes involved and its safety measures:</b> (Hydrogenation process, Nitration process, Chlorination process, Exothermic Reaction etc.)</p>
<b>Type of Process</b>	<b>Safety measures including Automation</b>
Sulphonation / Chlorination (Chlorination is proposed with Thionyl Chloride)	<ul style="list-style-type: none"> <li>➤ Provisions of safety valve &amp; rupture disk on reactor.</li> <li>➤ Provisions of auto dumping Vessel.</li> <li>➤ Required PPEs like full body protection PVC apron, Hand gloves, gumboot, Respiratory mask etc. will be provided to operator.</li> <li>➤ <b>To avoid runaway reaction, TC charging will be done gradually &amp; slowly.</b></li> <li>➤ <b>Charging will be done only through closed line and system. Scrubber attached with closed system.</b></li> <li>➤ <b>Make sure the absorber unit (two stage Alkali scrubber) is working and capable of handling vented SO<sub>2</sub> / HCl fumes.</b></li> <li>➤ <b>Neutralizing agent will be kept ready for tackle any emergency spillage.</b></li> <li>➤ Safety Shower and eye wash will be provided near process area.</li> <li>➤ For Thionyl Chloride evacuate area in down wind direction up to 0.3 km ( 300 meter) in small spillage.</li> <li>➤ Emergency siren and wind sock will be provided.</li> <li>➤ Tele Communication system and mobile phone will be used in case of emergency situations for communication.</li> <li>➤ Total close process will be adopted for Thionyl chloride charging.</li> <li>➤ Caution note and emergency first aid will be displayed and train for the same to all employees.</li> <li>➤ First Aid Boxes will be available in process area.</li> <li>➤ Emergency organization and team will be prepared as per On site-Off site emergency planning.</li> <li>➤ Emergency team will be prepared and trained for scenario base emergency. Like Toxic control team, Fire control team, First aid team, communication and general administration team, Medical team etc.</li> <li>➤ Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.</li> <li>➤ Use water spray to reduce vapors; do not put water directly on leak, spill area or inside container. Keep combustibles (wood, paper, oil, etc.) away from spilled material.</li> <li>➤ Cover with DRY earth, DRY sand or other non-combustible material followed with plastic sheet to minimize spreading or contact with rain.</li> </ul>
Bromination	<ul style="list-style-type: none"> <li>➤ <b>All end nozzles in bromine charging hose will be blinded after use.</b></li> <li>➤ <b>Charging of bromine will be done when reactor is in vacuum and POP coated funnel will be used during charging.</b></li> <li>➤ <b>Excess bromine will be neutralize or discharged by adding Sodium Bisulfite&amp; Sodium thiosulfite.</b></li> </ul>

	<ul style="list-style-type: none"> <li>➤ <b>Make sure the absorber unit (scrubber) is working and capable of handling vented bromine fumes.</b></li> <li>➤ Structure of bromine bottle area will be periodically inspected to ensure stability.</li> <li>➤ Personnel employed with bromine handling are made aware of potential hazards of bromine and of appropriate first-aid measure.</li> <li>➤ Exhaust hood connected with alkali scrubber and ventilation system will be available. Exhaust hood has been provided to maintain to concentration of bromine vapor well below PEL.</li> <li>➤ Work instructions for bromine charging will be displayed in local language/Hindi.</li> <li>➤ Safety shower and eye-wash fountains will be available nearby handling and charging facility. The location of such item will be inspected and tested at fixed interval to make sure that it is in good condition.</li> <li>➤ Hypo solution, lime water slurry or soda ash solutions will be available so as to pour them over a liquid bromine spill on the floor. The bromine and neutralizer is then washed to the sump with cold water hose.</li> <li>➤ Personal Hygiene – the following personal protective equipment will be used.</li> <li>➤ Chemical safety goggles, face shields, SCBA sets, Aprons, rubber gloves, etc.</li> <li>➤ Only trained employees handled bromine charging. Training will be given to employees for bromine handling and charging.</li> </ul>
<b>Nitration</b>	<ul style="list-style-type: none"> <li>➤ SOP will be displayed for safe charging of Nitric acid for nitration process.</li> <li>➤ Required PPEs like full body protection PVC apron, Hand gloves, gumboot, Respiratory mask etc. will be provided to operator at time of nitric acid charging.</li> <li>➤ <b>Make sure the absorber unit (two stage Alkali scrubber) will be working and capable of handling vented NO2 fumes.</b></li> <li>➤ Neutralizing agent will be kept ready for tackle any emergency spillage.</li> <li>➤ Safety Shower and eye wash will be provided near process area.</li> <li>➤ <b>Total close process will be adopted (from storage tank to measured vessel &amp; then to reactor) for Nitric Acid charging.</b></li> <li>➤ Caution note and emergency first aid will be displayed and train for the same to all employees.</li> <li>➤ First Aid Boxes will be available in process area.</li> <li>➤ <b>Prevention measures for runaway reaction of nitration reaction.</b></li> <li>• <b>Instrumentation control</b> –Interlock, Rotameter, DCS, Level alarms</li> <li>• TIC –Temp Indicator Controller- of jacketed reactor (<b>Gradually Charging material to maintain rate of rise of temperature,- Temperature sensor – Chilling Plant, Temp Range of Reaction: 25 to 30 degree centigrade Pressure : Atmospheric</b>)</li> <li>• Emergency control measures:</li> <li>• <b>Provision of Dumping vessel of the contents of the nitrator underneath reactor; the contents will be neutralized (by Alkali) in catch point. It will be sent to CF (Co-Processing/CHWIF/TSDF).</b></li> </ul>
<b>Hydrogenation</b>	<ul style="list-style-type: none"> <li>➤ DCS base process controls and operation of plant will be installed.</li> <li>➤ All electrical equipment's shall be installed as per Hazardous Area Classification.</li> <li>➤ <b>Total enclosed process system.</b></li> <li>➤ Instrument &amp; Plant Air System.</li> <li>➤ <b>Nitrogen blanketing in Hydrogenation reactor.</b></li> <li>➤ <b>Emergency dumping vessel will be provided during unforeseen</b></li> </ul>

	<p><b>circumstances.</b></p> <ul style="list-style-type: none"> <li>➤ Safety valve and Rupture disc provided on reactor.</li> <li>➤ Cooling, Chilling and alternate power arrangement have been made on reactor.</li> <li>➤ Process area and Hydrogen cylinder shall be far away as per standards practice.</li> <li>➤ PRV station with shut off valve, safety valve provision will be made for hydrogenation reaction safety.</li> <li>➤ Standard Operating procedure shall be followed during operation of Hydrogen Gas charging in to reactor and after completion of reaction Nitrogen purging will be done.</li> <li>➤ Flame arrestor will be provided on vent line of reactor and it will be extended above the roof level.</li> <li>➤ Safe Catalyst charging method will be adopted.</li> <li>➤ SOP will be displayed and operators will be trained for the same.</li> <li>➤ Static earthing and electric earthing (Double) will be provided.</li> <li>➤ Jumpers for static earthing on pipeline flanges of flammable chemical will be provided.</li> </ul> <p><b>Hydrogen gas detector will be installed for early detection of gas leak.</b></p>
<p><b>Chlorination (Chlorine Gas)</b></p>	<ul style="list-style-type: none"> <li>➤ Chlorine Emergency Kit will be procured and kept ready at process site.</li> <li>➤ Chlorine Hood with blower will be provided with scrubbing arrangement.</li> <li>➤ SCBA sets will be kept ready at site.</li> <li>➤ Safety Shower and eye wash will be provided in process area.</li> <li>➤ Chlorine absorption system will be provided. In case of chlorine leakage in chlorine shed it will be suck through blower and it will be scrubbed in Caustic scrubber.</li> <li>➤ Emergency siren and wind sock will be provided.</li> <li>➤ Tele Communication system and mobile phone will be used in case of emergency situations for communication.</li> <li>➤ First Aid Boxes and Occupational health centre will be made at site.</li> <li>➤ Emergency organization and team will be prepared as per On site-Off site emergency planning.</li> <li>➤ Full body protection suite and other PPEs will be kept ready at site.</li> <li>➤ Emergency team will be prepared and trained for scenario base emergency. Like Toxic control team, Fire control team, First aid team, Communication and general administration team, Medical team etc.</li> </ul> <p><b>Evacuate the area in down wind direction</b></p> <ul style="list-style-type: none"> <li>➤ For Chlorine evacuate area in down wind direction up to 0.4 km (400 meter) in small spillage and in case of large spillage, evacuate the area in down wind direction 3.5 kms (3500 meters).</li> <li>➤ SOP will be prepared for safe charging of Chlorine Cylinders.</li> <li>➤ Cylinders handling EOT crane will be installed in Chlorine shed area for safe Cylinders handling.</li> <li>➤ Safety Valve will be provided on chlorine header line and it will be connected to caustic scrubber.</li> <li>➤ Safety valve will be provided on vaporizer header and outlet of safety valve connected to scrubber.</li> <li>➤ Flow and temperature controllers will be provided on process line.</li> <li>➤ Chlorine Gas detectors will be provided in process area.</li> </ul>
<p><b>H-3</b></p>	<p><b>Details of Fire Load Calculation</b></p>

-	
Total Plot Area:	1088.0
Area utilized for plant activity:	94.50 (G+2)
Area utilized for Hazardous Chemicals Storage:	81(G+2)
Number of Floors:	G+2
Water requirement for firefighting in KLD :	14987
Water storage tank provided for firefighting in KLD:	2,00,000 (50000 + 150000) (Existing + Proposed)
Details of Hydrant Pumps:	Fire water Pump will be available. We will have 01 No's of electrical fire water Pump located at pump house having capacity 4550.0 litres/min and 01 No's of Diesel pump having capacity 4550.0 litres/min. Apart from this we have 01 Nos Jockey Pumps of capacity 1080.0 litres/min which maintains the Fire water Header Pressure at 8.0 kg/cm <sup>2</sup> .
Nearest Fire Station :	Panoli Fire Station
Applicability of Off Site Emergency Plan:	--
<b>H-4</b>	<b>Details of Fire NOC/Certificate:</b>
<b>Applied</b>	
<b>H-5</b>	<b>Details of Occupational Health Centre (OHC):</b>
-	
Number of permanent Employee :	10
Number of Contractual person/Labour :	15
Area provided for OHC:	16.0
Number of First Aid Boxes :	10
Nearest General Hospital :	Sarvajanik Hospital, Sanjali
Name of Antidotes to be store in plant :	Artificial respiration, First Aid, etc.

- During meeting, Committee noted that PP presented technical justification regarding no additional waste water generation from process even though addition of 130 API and its intermediate products in existing plant of simply basic chemical and organic salt products. Also PP presented green belt, only 9 % within premises as such as query generated in earlier meeting dated 06.07.2021 and additional greenbelt letter from GIDC for green belt of 24 % outside premises in GIDC area.
- Committee found submission of project proponent satisfactory.
- **After detailed discussion, Committee unanimously decided to recommend the project to SEIAA, Gujarat for grant of Environment Clearance with the following specific condition:**

**SPECIFIC CONDITIONS:**

1. Project Proponent (PP) shall strictly abide by the outcome/decision of Hon'ble Supreme Court of India in Civil Appeal no. 8478/2020 regarding operation of the Hon'ble NGT orders dated 10/07/2019 & 14/11/2019.
2. PP shall comply conditions of any subsequent amendment or expansion or change in product mix, after

the 30th September 2020, considered as per the provisions in force at that time as mentioned in the Notification vide S.O. 1223 (E) dated 27/03/2020.

3. PP shall carry out proposed project/activities in respect of Active Pharmaceutical Ingredients (API) as per the amended EIA Notification vide S.O. 1223 (E) dated 27/03/2020 and any subsequent amendments.
4. PP shall submit six monthly compliance report of Environmental Clearance without fail and the same shall be critically assessed by the regulatory authority.
5. PP shall not manufacture more than three or four (3-4) products from product list as per details submitted by PP.
6. GPCB shall ensure compliance of direction under section 18 (1) (b) of the Water (Prevention and Control of Pollution) act, 1974 issued by CPCB regarding compliance of CETP and also that the pollution load is not increased in the CPA/SPA for the compliance of Hon'ble NGT order.
7. Unit shall install CEMS [**Continuous Emission Monitoring System**] in line to CPCB directions to all SPCB vide letter no. B-29016/04/06PCI-1/5401 dated 05/02/2014 for effluent discharge and air emission as per pollutants discharge/emission from respective project and an arrangement shall also be done for reflecting the online monitoring results on the company's server, which can be assessable by the GPCB/CPCB on real time basis. [**For Small/Large/Medium (Red Category) & Whichever (Air emission & Effluent discharge) is applicable**].
8. Close loop solvent recovery system with adequate condenser system shall be provided to recover solvent vapours in such a manner that recovery shall be maximum and recovered solvent shall be reused in the process within premises.
9. Leak Detection and Repair (LDAR) program shall be prepared and implemented as per the CPCB guidelines. LDAR Logbooks shall be maintained.
10. PP shall maintain secure distance between existing food additive plant from proposed API plant considering environment and health point of view for proposed API and its intermediate production.

## **WATER**

11. Total water requirement for the project shall not exceed 22.80 KLD. Unit shall reuse 2 KLD of treated industrial effluent within premises. Hence, fresh water requirement shall not exceed 20.80 KLD and it shall be met through GIDC water supply only. Prior permission from concerned authority shall be obtained for withdrawal of water.
12. Total industrial effluent generation from the project shall not exceed 13.70 KLD after expansion.
13. Total Industrial effluent shall be treated in ETP followed by solvent stripper and then treated effluent shall be evaporated in in-house spray dryer.
14. Unit shall feed wastewater to in-house spray dryer only after ensuring content of effluent for COD/VOC so as not to get air borne during evaporation in order to achieve no adverse impacts on Environment and Human Health.
15. Domestic wastewater generation shall not exceed 2.50 KL/day for proposed project and it shall be treated in ETP. It shall not be disposed off through soak pit/ septic tank.

## AIR

16. Unit shall not exceed fuel consumption and provide APCM and Stack height as mentioned in flue gas matrix.
17. Unit shall provide APCM and stack height as mentioned in process gas matrix.

## HAZARDOUS & SOLID WASTE

18. All hazardous solid waste shall be managed as mentioned in hazardous waste matrix.
19. The unit shall submit the list of authorized end users of hazardous wastes along with MoU signed with them at least two months in advance prior to the commencement of production. In the absence of potential buyers of these items, the unit shall restrict the production of the respective items.

## GREENBELT AREA

20. The PP shall develop green belt within premises ( 100 sq. Meter within premises + 260 sq. Meter outside premises i.e. total 360 Sq. m i.e. 33 % of the total plot area) as per the undertaking submitted before SEAC. Green belt shall be developed with native plant species that are significant and used for the pollution abatement as per the CPCB guidelines. It shall be implemented within 3 years of operation phase in consultation with GPCB.

## 21. Safety & Health:

- a) PP shall obtain PESO permission for the storage and handling of hazardous chemicals.
- b) PP shall provide Occupational Health Centre (OHC) as per the provisions under the Gujarat Factories Rule 68-U.
- c) PP shall obtain fire safety certificate / Fire No-Objection certificate (NOC) from the concern authority as per the prevailing Rules / Gujarat Fire Prevention and Life Safety Measures Act, 2016.
- d) Unit shall adopt functional operations/process automation system including emergency response to eliminate risk associated with the hazardous processes.
- e) PP shall carry out mock drill within the premises as per the prevailing guidelines of safety and display proper evacuation plan in the manufacturing area in case of any emergency or accident.
- f) PP shall install adequate fire hydrant system with foam trolley attachment within premises and separate storage of water for the same shall be ensured by PP.
- g) PP shall take all the necessary steps for control of storage hazards within premises ensuring incompatibility of storage raw material and ensure the storage keeping safe distance as per the prevailing guidelines of the concerned authority.
- h) PP shall take all the necessary steps for human safety within premises to ensure that no any harm is caused to any worker/employee or labor within premises.
- i) Flame proof electrical fittings shall be provided in the plant premises, wherever applicable.
- j) Unit shall never store drum/barrels/carboys of incompatible material/chemical together.
- k) Unit shall provide effective Isolation for Process area and storage of hazardous chemicals.

- l) Unit shall provide water sprinkler to the ammonia storage cylinder.
- m) Unit shall provide safety valve and rupture disc, as well as auto dump or auto quench/, suppress system for nitration vessel safety
- n) Unit shall provide effective fire hydrants, water monitors & foam application system at solvent storage tank farm area. Unit shall provide adequate safety system such as water sprinklers, water curtains, foam pouring system etc. to restrict cascade fire emergency in solvent tank farm.
- o) Unit shall Store Bromine Bottle in cool dry separate area, out of direct sunlight.
- p) Unit shall provide safety valve & rupture disc to the Hydrogenation vessel.
- q) Unit shall provide chlorine leakage control emergency kit and FRP hood with scrubber system for chlorine safety

12.	SIA/GJ/IND2/211526/2021	<b>M/s. KLJ Petroplast Ltd</b>  Plot No. 909, 909/1 & 764, GIDC Jhagadia, Ta-Jhagadia, Dist-Bharuch	EC-Transfer
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- SEIAA, Gujarat has accorded Environment Clearance to **M/s. KLJ Plasticizers Limited** vide letter no. No. **SEIAA/GUJ/EC/5(F)/390/2021 Dated 03/04/2021**
- Now, project proponent has applied online vide proposal no. SIA/GJ/IND2/211526/2021 for name change from **M/s. KLJ Plasticizers Limited to M/S. KLJ Petroplast Ltd.**
- This proposal was considered in the SEAC meeting dated 05.08.2021. During the meeting, Committee noted that SEIAA, Gujarat has issued Environment Clearance [EC] to **M/s KLJ Plasticizers Limited** for setting up manufacturing plant of “**Synthetic Organic Chemicals**” at Plot No. 909, 909/1 & 764, GIDC Jhagadia, Ta-Jhagadia, Dist-Bharuch.
- During meeting, Committee asked for status of production plant, PP informed that they had received EC order recently on dated 03/04/2021 and construction of production plant work is going on.
- PP presented GIDC letter for plot transfer in name of M/s. KLJ Petroplast Ltd of dated 22/01/2021 and also presented Certificate of Incorporation letter from respective authority in name of **KLJ Petroplast Limited** vide letter dated 10.10.2020.
- PP presented old management and new management Director List.

**After detailed discussion, Committee unanimously decided to recommend the project to SEIAA, Gujarat for change in name from M/s KLJ Plasticizers Limited to M/S. KLJ Petroplast Ltd in Environment Clearance issued by SEIAA vide letter no. SEIAA/GUJ/EC/5(F)/390/2021 Dated 03/04/2021 with following specific condition.,**

1. Unit shall strictly complying each and every conditions accorded by SEIAA in EC order no.



SEIAA/GUJ/EC/5(F)/390/2021 Dated 03/04/2021 by new management as per details submitted by PP.

13.	SIA/GJ/IND2/216009/2021	<b>M/s. Adani Cement Industries Limited</b>  Survey No. 136/P, 137/P, 138/P, 139/P, 140/P, 141/P, 144/P, 145/P, 151/P, 152/P, 153/P, 154/P, 155/P, 162/P, 174/P, 175/P, 176/P, 178/P, 179/P, 187/P, 188/P, 189/P, 190/P, 191/P of Village Dahej and Survey No. 125/P, 124/P of Village Lakhigam in Dahej Industrial Estate, Tal.: Vagra, Dist.: Bharuch	EC-Transfer
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- SEIAA, Gujarat has accorded Environment Clearance to **M/s. Adani Cementation Limited** vide letter no. No. **SEIAA/GUJ/EC/3(b)/633/2019, Dated 03/05/2019**
- Now, project proponent has applied online vide proposal no. SIA/GJ/IND2/216009/2021 for name change from **M/s. Adani Cementation Limited to M/S. Adani Cement Industries Limited.**
- This proposal was considered in the SEAC meeting dated **05.08.2021**. During the meeting, Committee noted that SEIAA, Gujarat has issued Environment Clearance [EC] to **M/s Adani Cementation Limited** for setting up manufacturing plant of “Stand Alone Cement Grinding Unit” at Survey No. 136/P, 137/P, 138/P, 139/P, 140/P, 141/P, 144/P, 145/P, 151/P, 152/P, 153/P, 154/P, 155/P, 162/P, 174/P, 175/P, 176/P, 178/P, 179/P, 187/P, 188/P, 189/P, 190/P, 191/P of Village Dahej and Survey No. 125/P, 124/P of Village Lakhigam in Dahej Industrial Estate, , Tal.: Vagra, Dist.: Bharuch.
- Committee noted that PP asked for name change proposal with following amendment in EC order dated 03/05/2019,
  - Replace ‘Adani Cementation Limited’ with ‘**Adani Cement Industries Limited**’ in
    - a. Page 1. - Sub. – Line 1
    - b. Page 1. – Para 2 – Line 1
    - c. Page 5. – Issued to – Line 1
- During meeting, Committee asked for status of production plant, PP informed that they had yet not started construction activity at proposed plot. Gujarat Pollution Control Board has issued Consent to Establish (CTE) for above mentioned proposed project vide File No. GPCB/(PCB ID-82422) dated 25.05.2021.
- PP presented Certificate of Incorporation letter from respective authority in name of **Adani Cement Industries Limited** vide letter dated 10.10.2020.
- PP presented old management and new management Director list.
- Looking to proposal presented by PP, Committee insisted for following documents submission ,
  1. GIDC plot possession letter regarding proposed plot transfer in name of M/s. Adani Cement Industries Ltd along with connection between Adani port, wholly owned subsidiary of

**'AdaniEnterprisesLimited'** and Adani Cement Industries Ltd.

2. NOC of old unit management in their letter pad with all director/partner duly signed that they are willing for name change in EC order dated 03/05/2019.
3. Notarised undertaking for strictly complying conditions mentioned in EC order by directors of new management and also assurance regarding that name change shall not hamper any change in product and raw material as accorded by SEIAA vide EC order dated 03/05/2019.

**After detailed discussion, Committee unanimously decided to consider the proposal in one of upcoming meeting after submission of following documents,**

1. GIDC plot possession letter regarding proposed plot transfer in name of M/s. Adani Cement Industries Ltd along with connection between Adani port, wholly owned subsidiary of **'Adani Enterprises Limited'** and Adani Cement Industries Ltd.
2. NOC of old unit management in their letter pad with all director/partner duly signed that they are willing for name change in EC order dated 03/05/2019.
3. Notarised undertaking for strictly complying conditions mentioned in EC order by directors of new management and also assurance regarding that name change shall not hamper any change in product and raw material as accorded by SEIAA vide EC order dated 03/05/2019.

14.	SIA/GJ/IND2/216823/2021	<b>M/s. Assence Pharma Pvt. Ltd</b>  Survey nos. 591, 592, 593, 594, 595/A, 596, 597, 598, 606, 607, 608, 609/A, 610/A, 611/A, 612/A, 613, Petrochemical Complex Notified Area, Village: Ranoli, Tal. Vadodara, Dist. Vadodara	EC-Transfer
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- SEIAA, Gujarat has accorded Environment Clearance to **M/s. S.G.Pharmaceuticals** vide letter no. No. **SEIAA/GUJ/EC/5(F)/456/2017 Dated 29/04/2017**
- Now, project proponent has applied online vide proposal no. SIA/GJ/IND2/216823/2021 on dated 08/07/2021, for name change from **M/s. S.G.Pharmaceuticals to M/S. Assence Pharma Pvt. Ltd.**
- This proposal was considered in the SEAC meeting dated 05.08.2021. During the meeting, Committee noted that SEIAA, Gujarat has issued Environment Clearance [EC] to **M/s S.G.Pharmaceuticals** for setting up manufacturing plant of **"Synthetic Organic Chemicals"** at Survey nos. 591, 592, 593, 594, 595/A, 596, 597, 598, 606, 607, 608, 609/A, 610/A, 611/A, 612/A, 613, Petrochemical Complex Notified Area, Village: Ranoli, Tal. Vadodara, Dist. Vadodara.
- PP presented justification regarding name change as follows,
  - The EC application was made in the name of M/s. SG Pharmaceuticals based on land allotment letter dated 04/11/2015 issued by Notified Petrochemicals Complex Authority. As can be seen that M/s. SG Pharmaceuticals has been shown in the allotment letter as "A Division of Ambalal Sarabhai Enterprise Ltd. (ASE)".

- However, there was **an amalgamation of SG Pharmaceuticals into Ambalal Sarabhai Enterprises (ASE) Ltd** vide High Court Order.
- At the time of submission of EC application in the year 25/01/2017, the present management was not aware about this amalgamation which took place almost three decades back. Now, **Ambalal Sarabhai Enterprises (ASE) intends** to give this project land bearing survey nos. 591, 592, 593, 594, 595/A, 596, 597, 598, 606, 607, 608, 609/A, 610/A, 611/A, 612/A, 613 having area as 48,000 sq.m., (as per details submitted in EC application), **on lease to M/s. Assence Pharma Pvt. Ltd.**
- During meeting, Committee asked for status of production plant, PP informed that they had yet not started construction activity at proposed plot. Looking to EC order issued on dated 29/04/2017 and construction activity is yet not started by old unit, Committee insisted for justification with authenticated documents regarding still construction activity is not started at proposed plot along with photographs on Notarised undertaking of 300/-RS stamp paper.
- PP presented EC order in name of M/s S.G. Pharmaceuticals, Petro chemical complex notified area letter of dated 04/11/2015 showing M/s. S.G. Pharmaceuticals, a division of Ambalal Sarabhai Enterprise Limited and its survey no- 603(603-621,621/1,622 & 623),543( 545,577/1,577/2,578 to 580,585,586/1,586/2 & 586 to 601)601,547/1,550/1,549/1,548,584/1,583/1,581,581,574/2/A,574/1/A,573/1 & 546/1/1, an amalgamation of SG chemicals and Pharmaceuticals Limited with Ambalal Sarabhai Enterprises Private Ltd vide High Court Order dated 30/03/1981. Lease deed dated 02/06/2021 between Ambalal Sarabhai Enterprises Ltd and Assence Pharma Pvt. Ltd.
- Looking to proposal presented by technical expert of PP, Committee insisted for following documents submission ,
  1. Applicability of EC-transfer in name of M/s. Assence Pharma Limited from M/s. S.G.Pharmaceuticals ,looking to survey numbers mentioned in Petro chemical complex notified area letter of dated 04/11/2015 is differ than EC order dated 29/04/2017.
  2. Justification with authenticated documents regarding still construction activity is yet not started at proposed plot eventhough EC order issued on dated 29/04/2017 along with photographs, on Notarised undertaking of 300/-RS stamp paper.
  3. Chief Officer, Petro chemical complex notified area letter regarding proposed plot transfer in name of M/s. **Assence Pharma Limited** along with connection between S.G.Pharmaceuticals and M/s. Ambalal Sarabhai Enterprise, looking to High court order showing Amalgamation company name differ than proposed by PP.
  4. NOC of old unit management M/s. S.G.Pharmaceuticals in their letter pad with all director/partner duly signed that hey are willing for name change in EC order dated 29/04/2017.
  5. Notarised undertaking for strictly complying conditions mentioned in EC order by directors of new management and also assurance regarding that name change shall not hamper any change in product and raw material as accorded by SEIAA vide EC order dated 29/04/2017.
  6. List of name of old partners with address in its letter pad of M/s Ambalal Sarabhai Enterprise and M/s.

S.G.Pharmaceuticals separately, duly signed ny old management.

7. List of name of new directors with address in its letter pad of M/s Assence Pharma Limited, duly signed by new management.

**After detailed discussion, Committee unanimously decided to consider the proposal in one of upcoming meeting after submission of following documents,**

1. Applicability of EC-transfer in name of M/s. Assence Pharma Limited from M/s. S.G.Pharmaceutical, looking to survey numbers mentioned in Petro chemical complex notified area letter of dated 04/11/2015 is differ than EC order dated 29/04/2017.
2. Justification with authenticated documents regarding still construction activity is yet not started at proposed plot eventhough EC order issued on dated 29/04/2017 along with photographs, on Notarised undertaking of 300/-RS stamp paper.
3. Chief Officer, Petro chemical complex notified area letter regarding proposed plot transfer in name of M/s. **Assence Pharma Limited** along with connection between S.G.Pharmaceuticals and M/s. Ambalal Sarabhai Enterprise, looking to High court order showing Amalgamation company name differ than proposed by PP.
4. NOC of old unit management M/s. S.G.Pharmaceuticals in their letter pad with all director/partner duly signed that hey are willing for name change in EC order dated 29/04/2017.
5. Notarised undertaking for strictly complying conditions mentioned in EC order by directors of new management and also assurance regarding that name change shall not hamper any change in product and raw material as accorded by SEIAA vide EC order dated 29/04/2017.
6. List of name of old partners with address in its letter pad of M/s Ambalal Sarabhai Enterprise and M/s. S.G.Pharmaceuticals separately, duly signed by old management.
7. List of name of new directors with address in its letter pad of M/s Assence Pharma Limited, duly signed by new management.

15.	SIA/GJ/IND2/203753/2021	<b>M/s. Shree Ganesh Remedies Limited Unit-II</b> Plot No. 6714/2- 6715, GIDC Ankleshwar, Ta- Ankleshwar, Dist - Bharuch	EC-Amendment
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- During SEAC VC meeting on dated 05.08.2021, Project Proponent and their technical expert remain absent. PP has submitted letter via Email on dated 02/08/2021 stating that they would remain absent during meeting and withdraw application due to additional waste water discharge by unit at CETP of M/s. ETL ,not obtained by PP.
- **In view of the above, Committee decided to recommend to permit project proponent for withdrawal of their application of Environmental Clearance and to delist the proposal from the list of pending applications & to close the file.**

16	SIA/GJ/IND2/216860/2021	M/s. <b>BAJAJ HEALTHCARE LTD.</b> Plot No. 1717 & 1718,GIDC Estate,Panoli-394116,Tal: Ankleshwar, Dist: Bharuch	EC-Amendment
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- This is an existing inorganic unit and expansion project for manufacturing of “Synthetic Organic Chemicals” [API & its Intermediates] for which was accorded Environmental Clearance vide letter no. **SEIAA/GUJ/EC/5(F)/1334/2020 Date: 05/09/2020.**
- Now, project proponent has applied online vide proposal no. SIA/GJ/IND2/216860/2021 for EC-Amendment in EC letter no. **SEIAA/GUJ/EC/5(F)/1334/2020 Date: 05/09/2020 for change of fuel from cleaner fuel to solid fuel.** The details are as under:

Sr. no.	Condition no. in which Amendment is proposed.	As per EC	As per proposed amendment	Justification
1	<b>SECTION A.3 AIR</b>			
	<b>CONDITION 32.0 (Flue gas Emission)</b>	<b>Sr No 1: Boiler</b>  Capacity : 2.0 TPH  Fuel Used : Natural Gas  Quantity : 3246 SCM/day  Air Pollution Control measures : Adequate Stack height	<b>Sr No 1: Boiler</b>  Capacity : 2.0 TPH  Fuel Used: Natural Gas  Or Imported Coal  Quantity: 3246 SCM/Day (Natural gas)  Or 6 MT/day (Imported Coal)  Air Pollution Control measures: Adequate Stack height(for Natural Gas)	Unit will not go with single option of fuel.  Unit proposed following fuel- Natural gas&Imported Coal.  In-case of non-availability of any of them, they can switch over to available fuel.

			& MCS, Bag Filter & Water Scrubber (for Imported Coal)	
		<b>Sr No 2: Boiler</b>  Capacity : 5.0 TPH  Fuel Used : Natural Gas  Quantity : 8117 SCM/day  Air Pollution Control measures : Adequate Stack height	<b>Sr No 2: Boiler</b>  Capacity : 5.0 TPH  Fuel Used: Natural Gas Or ImportedCoal  Quantity: 3246 SCM/day (Natural gas) Or 16 MT/day (Imported Coal)  Air Pollution Control measures : Adequate Stack height(for Natural Gas) & MCS, Bag Filter & Water Scrubber (for ImportedCoal)	

- PP was called for presentation in the SEAC meeting dated 05.08.2021.
- During the meeting dated 05.08.2021, technical presentation made during the meeting by technical expert of PP, M/s Envycraft Environmental Services and project proponent.
- PP presented that they have applied for EC-Amendment for change of fuel in earlier EC order.

- PP presented the following documents:
  - ✓ Revised flue gas matrix mentioning Natural gas or imported coal or agrowaste/briquette as fuel and Multicyclone separator, bag filter and water scrubber as APCM for solid fuel fired boiler.
  - ✓ Revised solid waste matrix mentioning quantity of generation and mode of disposal of fly ash.
- Committee insisted to use natural gas as priority fuel and only one solid fuel instead of three solid fuel in option for natural gas as fuel in boiler, PP agreed and later on revised fuel details along with notarised undertaking of showing Natural gas or imported coal as fuel, through e-mail.
- Committee found submission of project proponent satisfactory.
- **After detailed deliberation, Committee unanimously decided to recommend grant of EC – Amendment to SEIAA, Gujarat with additional condition as mentioned below and change in “Condition No. 32 ” as follows and with remaining condition unchanged in EC granted by SEIAA, Gujarat vide Letter No. SEIAA/GUJ/EC/5(F)/1334/2020 Date: 05/09/2020.**

**Additional Condition:**

1. Unit shall use natural gas as a priority fuel. Imported coal shall be used in case of non-availability of Natural Gas as per undertaking submitted by PP.
2. Unit shall strictly complying GPCB guidelines for change of cleaner fuel to solid fuel for boiler.
3. Flyash generated from boiler management shall be as follows,

Sr. no.	Type/Name of Other wastes	Specific Source of generation (Name of the Activity, Product etc.)	Quantity (MT/Ann um)	Management of Wastes
1	Fly Ash	Boiler (Imported coal)	800.00	Collection, storage, transportation & send to Brick manufacturer as per Flyash Rules.

**Condition No. 32 shall now be read as under:**

32. Unit shall not exceed fuel consumption for boilers, Thermo pack and D G Set as mentioned below:

Sr. No.	Stack attached to	Stack Height (Meter)	Fuel	Fuel Qty.	APCM	Permissible limit
1.	Boiler	30	Natural Gas	3246	MCS+ Bag Filter& Water	SPM

	(2.0 TPH)		Or Imported Coal	SCM/day Or 6 MT/day	Scrubber & Adequate Stack Height	SO <sub>x</sub> NO <sub>x</sub>
2.	Boiler (5.0 TPH)	30	Natural Gas Or Imported Coal	8117 SCM/day Or 16 MT/day	MCS+ Bag Filter & Water Scrubber & Adequate Stack Height	
3.	TFH (2.0 Lac KCal/hr)	30	LDO	0.15 KL/Day	Adequate Stack Height	
4.	DG Set 250 KVA (Stand by)	9	Diesel	150 lit/day.	Adequate Stack Height	

17.	SIA/GJ/IND2/215854/2021	<b>M/s. Omen Pharma.</b> Plot No. 631 To 639, 654 To 656, 2019-2027/5/10, Revenue Survey No: 435/P, 436/P, 438/P, 439/P And 440/P, Gidc Panoli, Tal: Ankleshwar, Dist: Bharuch	EC-Amendment
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- This is Greenfield project for manufacturing of "Synthetic Organic Chemicals" [API & its Intermediates] for which was accorded Environmental Clearance vide letter no. **SEIAA/GUJ/EC/5(F)/903/2020 Date: 02/06/2021.**
- Now, project proponent has applied online vide proposal no. SIA/GJ/IND2/215854/2021 for EC-Amendment in EC letter no. **SEIAA/GUJ/EC/5(F)/903/2020 Date: 02/06/2021 for change of fuel from cleaner fuel to solid fuel.** The details are as under:

Sr. no.	Condition no. in which Amendment is proposed.	As per EC	As per proposed amendment	Justification
1.	SEIAA/GUJ/EC/5(f)/719/2020: A.3 Air: 33	Unit shall not exceed fuel consumption for Boiler, TFH and DG Set as mentioned	Unit shall not exceed fuel consumption for Boiler, TFH and DG Set as mentioned below:	Briquettes of Biocoal as an alternative fuel for the utility in case of non-availability of



		below: Natural Gas @ 4500 SCM/Day will be used as a fuel in Boiler & TFH. Diesel @ 15 Liter/Hr will be used as a fuel in DG Set.	Natural Gas @ 4500 SCM/Day or Briquettes of Bio-coal(12 MT/Day) will be used as a fuel in Boiler & TFH. Diesel @ 15 Liter/Hr will be used as a fuel in DG Set.	Natural Gas. Adequate APCM will be provided to achieve norms
2.	SEIAA/GUJ/EC/5(f)/719/2020: A.4 Air: 41	All the hazardous/solid waste management shall be taken care as mentioned below: There are 14 Category of Hazardous waste & 1 Non Hazardous waste (i.e. Fly Ash) generated and will be disposed as per Hazardous and Other waste (Management & Transboundary Movement Rule), 2016.	All the hazardous/ solid waste management shall be taken care as mentioned below: There are 14 Category of Hazardous waste & 1 Non Hazardous waste (i.e. Fly Ash) generated and will be disposed as per Hazardous and Other waste (Management & Transboundary Movement Rule), 2016.	Fly ash generated from utility will be added as non-hazardous waste.

- PP was called for presentation in the SEAC meeting dated 05.08.2021.
- During the meeting dated 05.08.2021, technical presentation made during the meeting by technical expert of PP, M/s. Aqua Air Environmental Engineering Pvt. Ltd and Project Proponent.
- PP presented that they have applied for EC-Amendment for change of fuel in earlier EC order.
- PP presented the following documents:
  - ✓ Revised flue gas matrix mentioning Natural gas or briquette of bio coal as fuel and Multicyclone separator, bag filter and water scrubber as APCM for solid fuel fired boiler and thermo pack.
  - ✓ Revised solid waste matrix mentioning quantity of generation and mode of disposal of fly ash.
- Committee found submission of project proponent satisfactory.
- **After detailed deliberation, Committee unanimously decided to recommend grant of EC – Amendment to SEIAA, Gujarat with additional condition as mentioned below and change in “Condition No. 33 and Condition No. 41” as follows and with remaining condition unchanged in EC granted by SEIAA, Gujarat vide Letter No. SEIAA/GUJ/EC/5(F)/903/2020 Date: 02/06/2021.**

**Additional Condition:**

1. Unit shall use natural gas as a priority fuel. Briquette of bio coal shall be used in case of non-availability of Natural Gas as per undertaking submitted by PP.
2. Unit shall strictly complying GPCB guidelines for change of cleaner fuel to solid fuel for boiler and thermo

pack.

**Condition No. 33 shall now be read as under:**

33. Unit shall not exceed fuel consumption for boilers, Thermo pack and D G Set as mentioned below:

Sr. no.	Source of emission With Capacity	Stack Height (meter)	Type of Fuel	Quantity of Fuel MT/Day	Type of emissions i.e. Air Pollutants	Air Pollution Control Measures (APCM)
1	Boiler (Capacity: 2.0 TPH)	30	Natural Gas or Briquettes	3390 SCM/Day or 9 MT/Day	SPM SO <sub>2</sub> NOx	MCS with Bag Filter + Water Scrubber
2	Thermic fluid heater (Capacity: 2 Lakh Kcal/ Hr)	30	Natural Gas or Briquettes	1110 SCM/Day or 3 MT/Day		MCS with Bag Filter + Water Scrubber
3	D. G. Set (100 KVA)	11	HSD	15 Lit/hr		Adequate Stack Height

**Condition No. 41 shall now be read as under:**

41. All the hazardous/ solid waste management shall be taken care as mentioned below:

Sr. no.	Type/Name of Hazardous waste	Specific Source of generation (Name of the Activity, Product etc.)	Category & Schedule as per HW Rules.	Quantity (MT/ Annum)	Management of HW
1	Discarded Drums/Bags	Raw Material and Storage	Sch-I/33.1	6	Collection, Storage, Transportation and sell to Register Re-processors after decontamination.
2	Used / Spent Oil	Equipment & Machinery	Sch-I/5.1	1.5 KL	Collection, Storage, Transportation and sell to registered recycler.
3	ETP Sludge	ETP	Sch-I/35.3	42	Collection, Storage, Transportation and Disposal at TSDF site.
4	Distillation Residue	Solvent Distillation Plant	Sch-I/20.3	60	Collection, Storage, Transportation and sent to Incineration facility of
5	Organic Residue	Process (Product	Sch -I/28.1	120	

		No:9)			BEIL, Ankleshwar.
6	Data expired or Off Specification Products	From mfg. Process (Batch failure)	Sch-I/28.4	3	
7	Spent Carbon	Process (Product No: 1)	Sch-I/28.2	5	
8	Spent Solvent	Process	Sch-I/28.6	2800	Collection, Storage, Distill inhouse and Reuse within premises for same product.
9	Hydrochloric acid solution (30%)	Scrubber	Sch-II-Class- B15	220	
10	Sodium Sulphite (22%)	Scrubber	Sch -I/28.1	170	
11	HBr Solution (30%)	Scrubber	Sch-I/28.1	120	Collection, Storage, Transportation and sold to end user having permission under rule-9.
12	Liq Ammonia	Scrubber	Sch -I/28.1	120	
13	Sodium Nitrite Solution (22%)	Scrubber	Sch -I/28.1	170	
14	Spent Catalyst	Process (Product No:10 & 30)	Sch-I/28.2	60	Collection, Storage, Transportation and sent to regenerator having rule 9 permission.
<b>After Amendment Fly Ash will be added as a Non Hazardous Waste</b>					
15	Fly Ash	Utility	--	210	Collection, Storage, Transportation and sent to brick manufacturer.

18	SIA/GJ/IND2/215842/2021	<b>M/s ELBEE AQUA LINK</b> Plot No. C1/1018, Phase-1 GIDC, Panoli, Tal: Ankleshwar-394116, District: Bharuch-394116	EC-Amendment
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- This is Green field project for manufacturing of "Synthetic Organic Chemicals" [API & its Intermediates] for which was accorded Environmental Clearance vide letter no. **SEIAA/GUJ/EC/5(F)/843/2020** Date: **07/07/2020**.

- Now, project proponent has applied online vide proposal no. SIA/GJ/IND2/215842/2021 for EC-Amendment in EC letter no. **SEIAA/GUJ/EC/5(F)/843/2020 Date: 07/07/2020 for change of fuel from cleaner fuel to liquid fuel.** The details are as under:

Sr. no.	Condition no. in which Amendment is proposed.	As per EC	As per proposed amendment	Justification
1	SECTION A-3 AIR			
	CONDITION 31.0	<p>Sr No 1: Steam Boiler</p> <p>Capacity: 0.3 TPH</p> <p>Fuel Used: Natural Gas</p> <p>Quantity: 500 SCM/Day</p> <p>Air Pollution Control measures: MCS &amp; Adequate Stack height</p>	<p>Sr No 1: Steam Boiler</p> <p>Capacity: 0.3 TPH</p> <p>Fuel Used: Natural Gas or Diesel</p> <p>Quantity 500 SCM/Day(Natural Gas) Or 25 Lit/Hr (Diesel)</p> <p>Air Pollution Control measures: MCS &amp; Adequate Stack height</p>	<p>Unit will not go with single option of fuel. Unit proposed both fuel Diesel &amp; Natural Gas.</p> <p>In-case of non-availability of any of them, they can switch over to available fuel.</p>
		<p>Sr No 2: Thermic Fluid Heater</p> <p>Capacity: 2 Lacs Kcal/hr</p> <p>Fuel Used: Natural Gas</p> <p>Quantity: 600 SCM/Day</p>	<p>Sr No 2: Thermic Fluid Heater</p> <p>Capacity: 2 Lacs Kcal/hr</p> <p>Fuel Used: Natural Gas or</p>	

		Air Pollution Control measures: MCS & Adequate Stack height	Diesel  Quantity: 600 SCM/Day  or 30 Lit/Hr(Diesel)  Air Pollution Control measures: MCS & Adequate Stack height	
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- PP was called for presentation in the SEAC meeting dated 05.08.2021.
- During the meeting dated 05.08.2021, technical presentation made during the meeting by technical expert of PP, M/s. Aqua Air Environmental Engineering Pvt. Ltd and Project Proponent.
- PP presented that they have applied for EC-Amendment for change of fuel in earlier EC order.
- PP presented the following documents:
  - ✓ Revised flue gas matrix mentioning Natural gas or diesel as fuel and Multicyclone separator as APCM for boiler and thermo pack.
- Committee found submission of project proponent satisfactory.
- **After detailed deliberation, Committee unanimously decided to recommend grant of EC – Amendment to SEIAA, Gujarat with additional condition as mentioned below and change in “Condition No. 31” as follows and with remaining condition unchanged in EC granted by SEIAA, Gujarat vide Letter No. SEIAA/GUJ/EC/5(F)/843/2020 Date: 07/07/2020.**

**Condition No. 31 shall now be read as under:**

31. Unit shall not exceed fuel consumption for boilers, Thermo pack and D G Set as mentioned below:

Sr. No.	Source of emission With Capacity	Stack Height (meter)	Type of Fuel	Quantity of Fuel MT/Day	Type of emissions i.e. Air Pollutants	Air Pollution Control Measures (APCM)
1.	Steam Boiler (0.3 TPH)	30/0.5	Natural Gas  OR	500 SCM/Day	PM  SO <sub>2</sub>  NO <sub>x</sub>	MCS  & Adequate Stack Height

				Diesel	OR 25 Lit/Hr.		
2	Thermic Fluid Heater (2 LacKcal/Hr)	30/0.5		Natural Gas OR Diesel	600 SCM/Day OR 30 Lit/Hr.		MCS & Adequate Stack Height
3	D.G. Set (65 KVA)	11/0.25		Diesel	10 lit/Hr.		Adequate Stack Height

19	SIA/GJ/IND2/215812/2021	<b>M/s. World Chem Industries</b> Plot No. C-1B/407/4, GIDC-Panoli, Tal: Ankleshwar, Dist. Bharuch 394116	EC-Amendment
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- This is an expansion project for manufacturing of “Synthetic Organic Chemicals” [API & its Intermediates] for which was accorded Environmental Clearance vide letter no. SEIAA/GUJ/EC/5(f)/680/2020 Date: 09/06/2020
- Now, project proponent has applied online vide proposal no. SIA/GJ/IND2/215842/2021 for EC-Amendment in EC letter no. **SEIAA/GUJ/EC/5(F)/680/2020 Date: 09/06/2020 for change of CMEE facility for waste water disposal.** The details are as under:

Sr. no.	Condition no. in which Amendment is proposed.	As per EC	As per proposed amendment	Justification
1	SECTION A-2 Water			
	A 2. Condition under the Water Act  Specific Condition: 18	The entire industrial effluent after proposed expansion (1.33 KLD) shall be treated in in-house ETP consisting of primary treatment plant and treated effluent shall be sent to common MEE of BEIL, Dahejfor final treatment and disposal.	The entire industrial effluent after proposed expansion (1.33 KLD) shall be treated in in-house ETP consisting of primary treatment plant and treated effluent shall be sent to common MEE of BEIL, Ankleshwar for final treatment and disposal.	At the time of issuance of EC, the Ankleshwar was covered under CPA. Henceforth, Honourable Committee denied for dispose their Wastewater in Common Facility those are located in Critically polluted Area (CPA-i.e., BEIL, Ankleshwar).  Right Now, there is no such restrictions imposed on Ankleshwar as per OM F. No. 22-23/2018-IA.III dated 28 <sup>th</sup> January,

				2021. We got permission for disposal of treated effluent to CMEE of BEIL, Ankleshwar. Membership letter No. MEE/PAN/014 Dated: 05-03-21.
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- PP was called for presentation in the SEAC meeting dated 05.08.2021.
- During the meeting dated 05.08.2021, technical presentation made during the meeting by technical expert of PP, M/s. ENVYCRAFT ENVIRONMENTAL SERVICES and Project Proponent.
- PP presented that they have applied for EC-Amendment for change of CMEE facility in earlier EC order.
- PP presented the following documents:
  - ✓ Membership certificate of CMEE of M/s BEIL, Ankleshwar.
- Committee found submission of project proponent satisfactory.
- **After detailed deliberation, Committee unanimously decided to recommend grant of EC – Amendment to SEIAA, Gujarat with additional condition as mentioned below and change in “Condition No. 18” as follows and with remaining condition unchanged in EC granted by SEIAA, Gujarat vide Letter No. SEIAA/GUJ/EC/5(F)/680/2020 Date: 09/06/2020.**

**Condition No. 18 shall now be read as under:**

18. The entire industrial effluent after proposed expansion (1.33 KLD) shall be treated in in-house ETP consisting of primary treatment plant and treated effluent shall be sent to **common MEE of BEIL, Ankleshwar** for final treatment and disposal.

20	SIA/GJ/IND2/215589/2021	<b>M/s. Raycon Distributors</b> 47/1/15, GIDC-Nandesari, Vadodara, Dist: Vadodara-391340	EC-Amendment
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- This is an expansion project for manufacturing of “Synthetic Organic Chemicals” [API & its Intermediates] for which was accorded Environmental Clearance vide letter no. SEIAA/GUJ/EC/5(f)/1444/2020 Date: 03/12/2020
- Now, project proponent has applied online vide proposal no. SIA/GJ/IND2/215589/2021 for EC-Amendment in EC letter no. **SEIAA/GUJ/EC/5(F)/1444/2020 Date: 03/12/2020** as under:

Sr. no.	Condition no.in which change proposed.	As per EC	As per proposed amendment	Justification
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1.	A. 4– 44	All the hazardous waste management shall be taken care as mentioned in Hazardous waste generation table	All the hazardous waste management shall be taken care as mentioned in Hazardous waste generation table	The unit is having process & fugitive emission of SO <sub>2</sub> . It is normally absorb with sodium hydroxide with 8 to 9 pH. It forms sodium sulphite solution. Now unit want to absorb the SO <sub>2</sub> gas with soda ash and it forms to sodium bisulphite solution. Unit would like to sell sodium sulphite solution and/or sodium bi sulphite to actual end users.
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- PP was called for presentation in the SEAC meeting dated 05.08.2021.
- During the meeting dated 05.08.2021, technical presentation made during the meeting by technical expert of PP, M/s. JYOTI OM CHEMICAL RESEARCH CENTRE PVT.LTD and Project Proponent.
- PP presented that they have applied for EC-Amendment for change of mode of disposal of Hazardous waste.
- PP presented the following documents:
  - ✓ Revised Hazardous waste matrix with mentioning disposal of process scrubbing media as sodium sulphite solution or sodium bisulphate solution.
  - ✓ Technical expert of PP presented that unit have already obtained CCA for disposal of process scrubbing media as sodium bi sulphite solution as hazardous waste due to usage of soda ash as scrubbing media for alkali scrubber in place of earlier EC granted for scrubbing media disposal as sodium sulphite solution.
- Committee found submission of project proponent satisfactory.
- **After detailed deliberation, Committee unanimously decided to recommend grant of EC – Amendment to SEIAA, Gujarat with additional condition as mentioned below and change in “Condition No. 44” as follows and with remaining condition unchanged in EC granted by SEIAA, Gujarat vide Letter No. SEIAA/GUJ/EC/5(F)/1444/2020 Date: 03/12/2020.**

**Condition No. 44 shall now be read as under:**

Sr. no.	Type/Name of Hazardous waste	Specific Source of generation (Name of the Activity, Product etc.)	Category and Schedule as per HW Rules.	Quantity (MT/Annum)			Management of HW
				Existing	Proposed Increased/Decreased	Total	
1	ETP Sludge	Effluent Treatment	35.3	6.00	-6.00	0	Collection and Storage within premises.



								Transportation and Disposal at TSDF, NECL.
2	Contaminated Discarded containers/ Bags, Drums, Carboys	Raw materials & Packaging	33.1	1.440	3.96	5.40		Collection, Storage and Decontamination within factory premises and send to actual users.
3	Distillation Residue	Product 1,2,3	36.4	0.240	0.760	1.00		Collection, Storage, Transportation, disposal at Co-Processing
4	Dilute HCl solution	Scrubber	37.1	---	210	210		Collection, Storage and Disposal to actual user having rule-9 permission.
5	Dilute Sodium sulphite solution/ Sodium bisulphite solution	Scrubber	37.1	---	414	414		Collection, Storage and Disposal to actual user having rule-9 permission.
6	Used oil	Machineries	5.1	---	0.1	0.1		Collection, Storage and Disposed to registered recycler.
7	Recovered Solvent	Product 1,2,3	28.6	64.8	48.6	113.4		Collection, Storage and Reuse in process

21	SIA/GJ/IND2/214511/2021	<b>M/s JAY GOPAL DYE CHEM</b> Plot No. 108/6 (New Survey No. 265), Plot No. 108/5(New Survey No. 262), Ravi Industrial Estate, B/h Prestige Hotel, Bileshwarpura, Ta- Kalol, Dist - Gandhinagar	TOR-Amendment
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- This is an existing unit and proposed expansion for manufacturing of **“Synthetic Organic Chemicals** and SEIAA accorded Terms of Reference (ToR) vide letter no. SEIAA/GUJ/TOR/5(f)/12/2020 dated 07/01/2021.
- Now, project proponent has applied online vide proposal no. SIA/GJ/IND2/214511/2021 for ToR-Amendment in ToR letter no. SEIAA/GUJ/TOR/5(f)/12/2020 dated 07/01/2021.
- PP request for change in address of plot as follows,
  - Plot No. 108/6 (New Survey No. 265), Plot No. 108/5(New Survey No. 262), Ravi Industrial Estate, B/h Prestige Hotel, Bileshwarpura, Kalol, Gandhinagar in place of Plot No. 108/6 (New Survey No.

265), Plot No. 108/5(New Survey No. 263), Ravi Industrial Estate, B/h Prestige Hotel, Bileshwarpura, Kalol, Gandhinagar i.e **New survey no -262 in place of 263.**

- PP was called for presentation in the SEAC meeting dated 05.08.2021.
- Project proponent (PP) and Technical expert from M/s. B.S.Rana remain present during video conference meeting.
- PP presented the following:
  - Sale deed document along with land possession document for amended plot.
  - Request letter by PP for change address mentioned in ToR letter dated 07/01/2021.
  - ToR Letter dated 07/01/2021 of proposed project.
- Committee asked for purposed of amendment of plot, technical expert of PP informed that by mistake of them, they had submitted ToR application with mentioning new survey no- 263 in place of 262.
- Committee found submission of project proponent satisfactory.
- **After detailed deliberation, Committee unanimously decided to recommend grant of TOR – Amendment to SEIAA, Gujarat with change in address shall be read as follows and with remaining condition unchanged in TOR granted by SEIAA, Gujarat vide Letter No. SEIAA/GUJ/TOR/5(f)/12/2020 dated 07/01/2021**
  - Plot No. 108/6 (New Survey No. 265), Plot No. 108/5(New Survey No. 262), Ravi Industrial Estate, B/h Prestige Hotel, Bileshwarpura, Ta- Kalol, Dist – Gandhinagar

22	SIA/GJ/IND2/213826/2021	<b>M/s. Chaitanya Life Science Pct Ltd</b> Plot no. 769/3/A/B/C, Jhagadia GIDC Mega Estate, Ta - Jhagadia, Dist - Bharuch	EC- Corrigendum
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- This is an existing unit proposed for expansion of manufacturing of “Synthetic Organic Chemicals [API and API Intermediates” for which was accorded Environmental Clearance vide letter no. SEIAA/GUJ/EC/5(f)/1512/2020 Date:15/12/2020
- Now, project proponent has applied online vide proposal no. SIA/GJ/IND2/213826/2021 for EC-Corrigendum in EC letter no. SEIAA/GUJ/EC/5(f)/1512/2020 dated: 15.12.2020 in which there is typographical error in plot number of unit. The details are as under:

Sr. no.	Plot No. as EC	New Plot no. for which is proposed
1.	Plot No. 769/3/B/C	Plot No. 769/3/A/B/C

- During meeting dated: 05.08.2021, committee noted that there is a typographical error in plot number of the unit.
- PP presented that there is typographical error in EC order accorded by SEIAA inplot number of the unit. PP

presented GIDC plot allotment letter for same plot.

- Committee noted that there is a typographical error related to plot number in address mentioned in EC order was inadvertent.

**After detailed deliberation, Committee unanimously decided to recommend grant of EC –Corrigendum to SEIAA, Gujarat with change in plot number of unit from “Plot No. 769/3/B/C to Plot No. 769/3/A/B/C” with remaining condition unchanged in EC granted by SEIAA, Gujarat vide Letter No. SEIAA/GUJ/EC/5(f)/1512/2020 dated Dec 15, 2020.**

23	SIA/GJ/IND2/214780/2021	<b>M/s. Colorant Limited</b> T-15, Saykha Industrial Estate of GIDC, Tal. Vagra, Dist. Bharuch, Gujarat	EC-Corrigendum
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- This is a Greenfield project proposed for manufacturing of “Synthetic Organic Chemicals” [Dyes intermediate] for which was accorded Environmental Clearance vide letter no. SEIAA/GUJ/ EC/ 5(f)/631/2021 dated 11/05/2021.
- Now, project proponent has applied online vide proposal no. SIA/GJ/IND2/214780/2021 on dated 09/07/2021 for EC-Corrigendum in EC letter no. SEIAA/GUJ/EC/5(f)/631/2021 dated: 11.05.2021 in which there is typographical error and details are as under:

Sr. No.	Condition No.	EC Conditions	Corrigendum Required	Remarks
1.	Subject & Paragraph 2 A.3 (27)	Environment Clearance to M/s. Colorant Ltd. for setting up manufacturing plant of 'Synthetic Organic Chemicals' [Synthetic Rubber] at Plot No. T -15 in Saykha industrial estate, Tal: Vagra, Dist: Bharuch. Gujarat. In Category 5(f) of Schedule annexed with EIA Notification dated 14/09/2006.	Environment Clearance to M/s. Colorant Ltd. for setting up manufacturing plant of 'Synthetic Organic Chemicals' [Dye Intermediates] at Plot No. T -15 in Saykha industrial estate, Tal: Vagra, Dist: Bharuch. Gujarat. In Category 5(f) of Schedule annexed with EIA	All the products are dye intermediates and end use of product is in dye manufacturing Refer following <ul style="list-style-type: none"> <li>○ EIA Report</li> <li>○ Undertaking by consultant at the time of EIA report submission.</li> <li>○ Appraisal Presentation</li> <li>○ SEAC Format</li> </ul>

			Notification dated 14/09/2006.	
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Sr. No.	Condition No.	EC Conditions	Corrigendum Required	Remarks
2.	A.5 (Other) 32	All the recommendations, mitigation measures, environmental protection measures and safeguards proposed in the EIA report of the project prepared by M/s. Excel Enviro Tech and submitted by project proponent and commitments made during presentation before SEAC and proposed in the EIA report shall be strictly adhered to in letter and spirit.	All the recommendations, mitigation measures, environmental protection measures and safeguards proposed in the EIA report of the project prepared by M/s. Envisafe Environment Consultants and submitted by project proponent and commitments made during presentation before SEAC and proposed in the EIA report shall be strictly adhered to in letter and spirit.	EIA Report prepared by M/s. Envisafe Environment Consultants. Refer following <ul style="list-style-type: none"> <li>○ ToR Granted</li> <li>○ EIA Report</li> <li>○ Undertaking by consultant at the time of EIA report submission.</li> <li>○ Appraisal Presentation</li> <li>○ SEAC Format</li> <li>○ Minutes of Meeting</li> </ul>

- During meeting dated: 05.08.2021, committee noted that there is a typographical error in Subject & Paragraph 2 A.3 (27).The facts were verified with EIA report and undertaking by consultant at the time of submission.
- Committee noted that there is a typographical error in 'Synthetic Organic Chemicals' [**Dye Intermediates**] in place of 'Synthetic Organic Chemicals' [**Synthetic Rubber**] at Plot No. T -15 in Saykha industrial estate, Tal: Vagra, Dist: Bharuch. Also , Committee noted that EIA report was prepared by M/s. Envisafe Environment Consultant and by mistake it was mentioned M/s.Excel Enviro Tech in EC order vide condition no - A.5(other) 32.

- Committee noted that SEAC meeting held on 30/01/2021 for EC order corrigendum vide letter dated 11/05/2021 showing consultant name for EIA submission by M/s. Envisafe Environment Consultant.
- Committee noted that the typographical error in the EC order accorded by SEIAA was inadvertent.

**After detailed deliberation, Committee unanimously decided to recommend grant of EC – Corrigendum to SEIAA, Gujarat with amended shall be read as “‘Synthetic Organic Chemicals’ [Dye Intermediates] in place of ‘Synthetic Organic Chemicals’ [Synthetic Rubber]”in Subject & Paragraph 2 with remaining condition unchanged in EC granted by SEIAA, Gujarat vide Letter No. SEIAA/GUJ/ EC/ 5(f)/631/2021 dated 11/05/2021 and condition no A.5(other) 32 shall be read as follows,**

**condition no A.5(other) 32 shall now be read as under:**

All the recommendations, mitigation measures, environmental protection measures and safeguards proposed in the EIA report of the project prepared by M/s. **Envisafe Environment Consultants** and submitted by project proponent and commitments made during presentation before SEAC and proposed in the EIA report shall be strictly adhered to in letter and spirit.

24	SIA/GJ/IND2/216106/2021	<b>M/s. BBELL INDUSTRY LLP.</b> Plot No. DP-119, GIDC Saykha, Sayakha, Taluka - Vagra, District - Bharuch, Gujarat	EC-Corrigendum
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- This is a Greenfield project proposed for manufacturing of “Synthetic Organic Chemicals” [Dyes intermediate] for which was accorded Environmental Clearance vide letter no. SEIAA/GUJ/EC/5(f)/866/2020 dated 17/06/2021.
- Now, project proponent has applied online vide proposal no. SIA/GJ/IND2/216106/2021 on dated 09/07/2021 for EC-Corrigendum in EC letter no. SEIAA/GUJ/EC/5(f)/866/2020 dated: 17.06.2021 in which there is typographical error and details are as under:

Sr. no.	Name as EC Amendment	Changes Required
1	BBELL INDUSTRY	BBELL INDUSTRY LLP.
2	Condition No. A.3 (20) In Point – VI on Page – 2 written as “shall be treated as null and Void”	<b>Condition No. A.3 (20) “shall be now read as under”</b>

- During meeting dated: 05.08.2021, committee noted that there is a typographical error in name of unit and condition no-A.3 (20).
- Committee noted that PP presented Environment Clearance accorded vide letter no.

SEIAA/GUJ/EC/5(f)/1091/2020 dated 30/09/2020 on the name of BBELL INDUSTRY LLP With ZLD scheme. Then PP obtained EC amendment was applied on 15/01/2021 for Change of effluent disposal mode from ZLD to CETP and accordingly EC Amendment issued vide letter no. SEIAA/GUJ/EC/5(f)/866/2020 dated 17/06/2021. Name of the company in subject is written as "BBELL INDUSTRY" instead of "BBELL INDUSTRY LLP". PP submitted EC and CTE order issued by GPCB showing name of unit as "BBELL INDUSTRY LLP". Also Committee noted that Condition No. A.3 (20) "shall be now read as under" in place of Written as "shall be treated as null and Void" in EC order dated 17/06/2021.

- Committee noted that the typographical error in the EC order accorded by SEIAA was inadvertent.

**After detailed deliberation, Committee unanimously decided to recommend grant of EC – Corrigendum to SEIAA, Gujarat with amended shall be read name of unit as "BBELL INDUSTRY LLP in place of BBELL INDUSTRY" in Subject & Paragraph 2 with remaining condition unchanged in EC granted by SEIAA, Gujarat vide Letter No. SEIAA/GUJ/ EC/ 5(f)/631/2021 dated 11/05/2021 and condition no A.3(20) amended as follows.**

Condition No. A.3 (20) "shall be now read as under" in place of Condition No. A.3 (20) In Point – VI on Page – 2 written as "shall be treated as null and Void".

25	SIA/GJ/IND2/215019/2021	<b>M/S. ANUGRAH PHARMA</b> Plot No. 39/9, GIDC Jhagadia, Bharuch Gujarat 393110	EC-Corrigendum
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- This is a Greenfield project proposed for manufacturing of "Synthetic Organic Chemicals" for which was accorded Environmental Clearance vide letter no. SEIAA/GUJ/EC/5(f)/705/2021 dated: 28.05.2021.
- Now, project proponent has applied online vide proposal no. SIA/GJ/IND2/215019/2021 on dated 09/07/2021 for EC-Corrigendum in EC letter no. SEIAA/GUJ/EC/5(f)/705/2021 dated: 28.05.2021 in which there is by mistake in water condition as under:

Sr. no.	Condition no. in which Corrigendum required.	Detail as per EC	Required Corrigendum	Remark
1.	Section A.2 Water			
	Condition 13.	Sub Point under-Low COD and TDS effluent (36.70 KLD) ➤ 27 KLD, MEE condensate and 3 KLD, domestic effluent shall be further treated in ETP consists of secondary &	Low COD and TDS effluent (36.70 KLD) ➤ To be removed said sub Point	*Kindly remove <sup>nd</sup> 2 <sup>nd</sup> sub point  All conditions apart from this will remain

		Tertiary ETP followed by RO. 23.50 KLD, RO permeate shall be reused within premises and 7 KLD. RO reject shall be treated in MEE.		unchanged.	
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- During meeting dated: 05.08.2021, committee noted that there is a mistake in one of the water condition and subpoint for Low COD and TDS effluent shall be removed. Committee noted that there is a mistake in SEAC recommendation letter. PP informed that they have submitted proposal of waste water disposal to M/s NCT in place of MEE and RO plant at time of appraisal of the unit.
- Committee noted that the mistake in condition of A.2 Water (13) in SEAC Recommendation EC letter was inadvertent.
- **After detailed deliberation, Committee unanimously decided to recommend grant of EC – Corrigendum to SEIAA, Gujarat with change in “Condition No: A.2 Water(13)” as follows and with remaining condition unchanged in EC granted by SEIAA, Gujarat vide Letter No. SEIAA/GUJ/EC/5(f)/705/2021 dated: 28.05.2021**

**Following subpoint in Condition no – A.2 Water(13) for low COD and TDS effluent(36.70 KLD) shall be removed**

- 27 KLD, MEE condensate and 3 KLD ,domestic effluent shall be further treated in ETP consists of secondary & Tertiary ETP followed by RO. 23.50 KLD, RO permeate shall be reused within premises and 7 KLD. RO reject shall be treated in MEE.

**The meeting ended with a vote of thanks to the Chair.**

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**Minutes approved by:**

1.	Shri Akshay Kumar Saxena, Chairman, SEAC	
2.	Dr. S. C. Pant, Vice Chairman, SEAC	
3.	Dr. M. N. Patel, Member, SEAC	
4.	Shri D. C. Chaudhari, Member, SEAC	

5.	Shri J. K. Vyas, Member, SEAC	
6.	Shri Anand Zinzala, Member, SEAC	
7.	Shri B. M. Tailor, Member, SEAC	
8	Shri A. V. Shah, Secretary, SEAC	

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